

# THE SCHOOL REVIEW

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## Educational News and Editorial Comment

### REORGANIZATION OF THE EDUCATIONAL SYSTEM OF ENGLAND

Three years ago the Board of Education of England appointed a so-called "Consultative Committee" to consider the reorganization of the primary and secondary schools and to report on the possibility of unifying more completely the whole system of education. In order to understand the full significance of the report which has recently been rendered by this Consultative Committee, one must keep in mind the fact that England, like all other European countries, has two school systems, one for the common people and one for the upper classes. The school for the common people is limited in its curriculum and short in duration, much like the American elementary school. The school for the élite is so organized that it receives pupils at six years of age and gives them a training which leads into the professions and to all the higher governmental posts.

During the past three years the Consultative Committee has canvassed the many social and financial problems which are involved in a reconstruction of the whole school system. The committee has consulted at formal hearings all who are interested in education—board members, teachers, representatives of religious bodies, and national school officers.

The final report is of special interest to American educators for two reasons. First, the plan of school organization recommended resembles very closely the American system which has rapidly come to be accepted since the advent of the junior high school. Second, no careful student of education can fail to contrast to our disadvantage the American method of unsystematic, local experimentation in education with the British method of creating a national committee and defining the new plan clearly and giving it the stamp of authority. America has stumbled more or less blindly into the junior high school plan. The British authorities have seen the advantages of a new system of secondary schools and have defined clearly the schools which are to be established.

Extracts from the leading article in a recent issue of the London *Times Educational Supplement* are as follows:

The committee recommend that primary education should be regarded as ending at about the age of 11+. A second stage of post-primary education should then begin for all normal children. This stage, which for many pupils would end at 16+, for some at 18 or 19, but for the majority at 14+ or 15+ (the leaving age to be raised five years hence to the age of 15), should as far as possible be regarded as a single whole within which there will be a variety of types of education but which will generally be controlled by the common aim of providing for the needs of children who are entering and passing through the stage of adolescence. It is desirable, the committee hold, that many more children should pass to "secondary" schools in the current sense of the term; but it is necessary that the post-primary stage of education should also include at least three other types of school, in which the curricula will vary according to the age up to which the majority of pupils remain at school and the different interests and abilities of the children.

"The schools which deal with the post-primary stage of education should include (in addition to junior technical and 'trade' schools) the following types;

"1. Schools of the 'secondary' type now commonly existing, which at present follow in the main a predominantly literary or scientific curriculum and carry the education of their pupils forward to the age of at least 16+.

"2. Schools of the type of the existing selective central schools, which give at least a four-year course from the age of 11+, with a 'realistic' or practical trend in the last two years.

"3. Schools of the type of the existing non-selective central schools, which may either be the only central schools in their area or may exist side by side with selective central schools and cater to those children who do not secure admission to such schools.

"4. Senior classes, central departments, 'higher tops,' and analogous ar-

rangements, by which provision is made for the instruction of pupils over the age of 11+ for whom, owing to local conditions, it is impossible to make provision in one or other of the types of school mentioned above."

These changes should involve changes in nomenclature; and the committee recommend that education up to 11 should be known as "primary," and after that age as "secondary"; while schools of the existing secondary type should be called "grammar schools," schools of the existing selective central school type and non-selective central school type, "modern schools"; and other post-primary departments or classes for children who do not go to either of the three previous types of schools, "senior classes."

The recommendations of the committee with regard to the curricula in these new schools are the essence of the whole scheme. The grammar schools will continue to give the kind of education now given by the existing secondary schools, the courses being planned for five or more years; but the modern schools will plan their courses for three or four years, and these courses will be simpler and more limited in scope. While in the last two years they should not be "merely vocational or utilitarian," the treatment of the subjects in the curriculum "should be practical in the broadest sense and brought directly into relation with the facts of everyday life," school work being connected "with the interests arising from the social and industrial environment of the pupils." Again, "every effort should be made to secure a close connection between the work in school and the pupil's further education after leaving."

"Modern schools and senior classes should, as a rule, give a practical bias to the curriculum in the third or fourth year of the course. This bias should be introduced only after careful consideration of local conditions and upon the advice of persons concerned with the local industries. It should not be of so marked a character as to prejudice the general education of the pupils. Adequate provision should be made for the needs of such pupils as may gain greater advantage by following a more general course of study."

The committee recommend also that teachers in modern schools and secondary classes should encourage their pupils to avail themselves of opportunities for further instruction. The committee would encourage junior technical schools and junior art departments and would provide for the transfer of promising pupils in modern schools to grammar schools and vice versa. The qualifications of the teachers and the standard of staffing in the modern schools should approximate those in grammar schools, though more teachers will be wanted in practical subjects—industrial, commercial, or agricultural. In no sense should the modern schools be "inferior" to the grammar schools; with due allowances for the age of the pupils and the character of the curriculum, the construction and equipment of modern schools should approximate the standard required by the Board for the grammar schools.

The following paragraph is quoted from an editorial in the same issue of the *London Times Educational Supplement*.

The report cuts itself adrift from the old idea of "elementary" education. It declares that all education up to the age of 11, and a little over, should be known by the general name "primary education," "and education after that age by the general name 'secondary education.'" This secondary education is carefully graded into education given by four types of schools. The usual secondary school of our time, where the students pursue a predominantly literary or scientific curriculum, it is proposed to call a "grammar school." Two classes of central schools—the selective and the non-selective type—are to be grouped together under the name "modern schools." Departments or classes within the present public elementary schools which provide post-primary education for children who will not pass to the grammar school or the modern school are to be known as "senior classes." Special emphasis is placed on the assumed fact that education in modern schools or senior classes is not an inferior species of the genus "secondary education" but a definite species of that genus and "ought not to be hampered by conditions of accommodation and equipment inferior to those of grammar schools." The voluntary societies and the local authorities must face this assumption, since it lies at the root of the proposals of the report. Universal secondary education is the goal, and that is not possible with inferior accommodation and equipment for those grades which devote more time and attention to handwork and similar pursuits than is devoted in the grammar schools. None of these schools will be merely vocational or utilitarian, but the courses in the modern schools "should be used to connect the school work with the interests arising from the social and industrial environment of the pupils." Interchange between these various types of post-primary schools is contemplated, and it is made quite clear that the qualifications of the teachers and the standard of staffing in proportion to the number of the pupils "should approximate those required in the corresponding forms of grammar schools." The fact that the modern schools, as a rule, will have an industrial, commercial, or agricultural bias will, of course, involve the provision of some teachers with special qualifications.

#### ATTENDANCE IN AMERICAN COLLEGES

The *Associated Press* issued the following summary of the annual survey of college attendance made by the *Boston Transcript*.

In its sixteenth annual survey of the country's colleges and universities, the *Boston Transcript* estimated the number of young men and women now attending college in the United States at approximately 750,000. Commenting on the increased enrolment, the *Boston Transcript* said:

"This basis of comparison, however, is not the formula which leads Europe to its present amazement at American collegiate enrolments. It is a fact that, whereas only thirteen persons in every 10,000 of the population of France and only fifteen in every 10,000 of the population of the British Isles are found attending the universities there, the latest (1923-24) figures compiled by the United States commissioner of education show about sixty college students for every 10,000 of America's population."

"And still no reason appears for the view that American collegiate enrolments have as yet reached their possible maximum, or anything like it. Fairly accurate computations show that the nation has today some 6,000,000 young men and women between the ages of eighteen and twenty-one. Of these, it is estimated from divers tests, at least 20 per cent have the mental equipment which would enable them to enter college if their economic equipment permitted.

"Today only 12½ per cent of the 6,000,000 are in college. Still remaining, therefore, as eligible candidates for college is at least another 7½ per cent of the 6,000,000, or 450,000 more American boys and girls likely to be enrolled in our colleges as soon as the advancing economic wealth of the country so extends as to include their families in the group, immensely larger than in any other country of the world, financially able to attend."

The *Boston Transcript* found that higher education in the United States has become centralized to a marked degree in state and urban universities, with the twenty-five largest universities, less than 4 per cent of the total of 780 collegiate institutions, now giving instruction to approximately 40 per cent of all the collegiate, graduate, and professional students of the United States.

Facts showing the astonishing expansion of higher education are reported by Arthur J. Klein in *Higher Education—Biennial Survey, 1922-1924*, a bulletin recently issued by the United States Bureau of Education. Mr. Klein says:

The income of higher institutions in 1912, excluding additions for endowment, was \$89,835,787; by 1922 this had increased to \$272,815,703. This three-fold increase in money costs during the ten-year period, an increase much greater than the increase in population or in the income of the country, caused great concern.

The most important element in accounting for the increase is the growth in teachers' salaries. This increase during the years of the world-war and immediately thereafter has been one of the most remarkable phenomena in higher education in the United States. In small colleges salaries rose from an average of about \$1,400 to an average of \$2,000, in medium-sized institutions from \$2,500 to \$4,000, and in the large institutions from \$5,000 to \$8,000 or \$10,000. During the same period the number of students more than doubled. In 1912 there were 255,673 students enrolled in the colleges and universities; by 1922 the number had become 550,906.

Mr. Klein points out that criticism of college education has naturally followed this expansion as an expression of the doubts which taxpayers and benefactors feel when they realize that there is no reduction in the cost of higher education in sight but clear prospect of further increases.

Among the criticisms of college organization, none are more

drastic than those which are issued annually by the presidents of the leading universities of the country. The *New York Times* published the following summary of President Lowell's annual report.

Experimentation and not uniformity in education is the need of the American colleges today, President A. Lawrence Lowell of Harvard stated in his annual report to the Board of Overseers of the University.

Present methods are partly the reason, President Lowell said, that the American college youth, as a class, "has customs, immature modes of thought, an attitude toward its diversions, and lack of sense of responsibility for its own education that belong to schoolboys."

The general examination and tutorial system in force at Harvard, the report asserted, is a contribution to the problem's solution. In America, President Lowell declared, it has been the custom to teach in college what should have been taught in the secondary schools and by methods that should be finished in the secondary schools. Harvard, he said, is getting away from this system as fast as the change can be made.

"In the public mind," he continued, "the conception of a college education is vague; a college is a college, and all are of one generic type; whereas in fact they are very diverse in standards and aims."

A college, he pointed out, should be a place for cultivating and liberating the mind, especially in a democracy where guidance and control rest with a ruling class.

"Politically men here are born free and equal, but intellectually they are born neither free nor equal," President Lowell said, "and so to teach men how to think, and what to think about, as cultivated men and citizens, is the object of the college that is not primarily vocational."

President Lowell expressed great confidence in the ultimate success of the general examination and tutorial system in force at Harvard and said that it appears to have led to a desire on the part of an increasingly large number of students to try for distinction in various courses of study.

The system, he said, is being developed with the aim in mind of leading the student to acquire as soon as possible the capacity for self-education under guidance, "which is the essence of all training in the art of thought, and the foundation of the later education that continues through life."

In considering the building program being completed at Harvard, President Lowell brought out that more men are applying to the colleges for admission than can be efficiently taught.

He did not urge the construction of more buildings but stressed the point that a college education is not a necessity for a man to obtain a good education. On this point he said:

"They seem to forget that the classroom is not the only means of education, that a youth may get more intellectual and moral training from practical work that he likes than from formal lessons that he loathes.

"They do not appreciate that all true education is self-education and that

to force a boy to go to school beyond a certain point where he will be doing set tasks in which he takes no interest may stultify his mind and fret his character."

Of the athletic side of college life, President Lowell said:

"Collegiate contests now appear less like such events of fifty years ago than like the world series of the professional baseball teams, the games in the Coliseum at Rome, or the races at Constantinople which brought Justinian into conflict with the populace."

He indorsed the annual Harvard-Yale game but said that the recently adopted policy of the Harvard athletic director to rotate other games each year and not play any team but Yale regularly would serve to "reduce the excessive prominence of the games which precede the great final contest with Yale."

He urged the development of intramural sporting events conducted by the students and for the students, not for "the entertainment of the alumni and the public."

#### INTELLIGENCE SCORES AND PROGRESS THROUGH COLLEGE

Volume I, No. 1, of the *University of Kansas Bulletin of Education* contains a number of articles which are of interest to high-school administrators. One article, "Intelligence Rating of High School Pupils and Their Achievement in College," by Lou L. LaBrant, may be selected for special comment.

This article follows into college 160 high-school pupils out of 1,078 who had been subjected in the high school to the Terman Group Test of Mental Ability. The 160 pupils under consideration had a median score of 145.36.

Three tables are presented with comments as follows:

Table I shows that there is a marked relation between the Terman scores and the probability of success as measured by "pass" and "fail" when the quarter groups are considered. Thus, while students in the lowest fourth failed to make a passing grade in 19 per cent of the work for which they enrolled, those in the highest fourth failed similarly in but 2.7 per cent. . . .

Several items of the data in Table II suggest questions and possible conclusions rather at variance with popular opinion. It will be noted that, of the forty-six students in the group who fell below the median Terman score for the entire college group, fourteen, or 30 per cent, failed to enrol for the second year of work; while, of the forty-two of this group who were above the Terman median, thirteen, or nearly 31 per cent, were not enrolled for the year 1924-25. If these figures are typical, it would appear that the elimination of college students from freshman to sophomore year is at least as high in the case of those having higher Terman scores as in the case of those below the median Terman score.

Approximately three times as many students in the lower intelligence group worked for part of their support as in the upper group, and the sum of hours per week devoted by the former to self-support was 448 as against 175 by the latter

group. Even in spite of factors which make information on this point difficult to handle, the figures on self-support remain significant.

Of these thirty-five students who were at least partly self-supporting, twenty-five had grades which fell below the median. These figures suggest that students

TABLE I

SEMESTER HOURS ENROLLED, HOURS OF FAILURE, HOURS INCOMPLETE OR WITHDRAWN, AND THE PERCENTAGE OF UNSATISFACTORY WORK

Relation to Terman Scores for 160	Total Semester Hours Enrolled*	Total Hours Failed*	Total Hours Incomplete and Withdrawn*	Total Hours Failed, Incomplete, and Withdrawn*	Percentage Hours Unsatisfactory*
Above median . . . . .	1,629.5	86	22	108	6.6
Below median . . . . .	1,741	270.5	49.5	320	18.3
In lowest one-fourth . . . . .	802.5	120	33	153	19.0
In highest one-fourth . . . . .	851.5	23	0	23	2.7
In middle 50 per cent . . . . .	1,716.5	213.5	38.5	252	14.6

\*In first three semesters of college work.

TABLE II  
FACTS CONCERNING DROPPING OUT AND SELF-SUPPORT OF STUDENTS

Relation to Terman Scores for 160	Total Number Students	Number Students Not Enrolled Second Year	Number Students Suspended	Number Students Self-supporting	Hours per Week in Self-Support
In lowest one-fourth . . . . .	22	6	6	9	182
In second one-fourth . . . . .	24	8	5	17	266
Below median . . . . .	46	14	11	26	448
In third one-fourth . . . . .	23	11	1	4	91
In highest one-fourth . . . . .	19	2	0	5	84
Above median . . . . .	42	13	1	9	175

TABLE III  
POINTS OF SELF-SUPPORT AND OF EXTRA-CURRICULUM ACTIVITIES IN RELATION TO TERMAN SCORES FOR EIGHTY-EIGHT COLLEGE STUDENTS

	Lowest Fourth	Second Fourth	Third Fourth	Highest Fourth
Points in self-support . . . . .	390	570	195	105
Extra-curriculum activities . . . . .	225	355	320	325

of less than median (college) intelligence who continue school work after high-school graduation may be selected on the basis of superior determination or persistence. . . .

It will be seen in Table III that there was a tendency for the students above the lowest fourth in mental ability to carry more extra-curriculum activities and for the students in the two lowest fourths to earn more points in self-sup-

port. The table clearly shows, however, that the combined loads of self-support and extra-curriculum activities carried by the students of less than median mental ability were heavier than those of students of superior ability.

#### CO-OPERATIVE COMMERCIAL EDUCATION ABANDONED AT ONE SCHOOL

The Cincinnati plan, under which students alternate between machine shops and college classes, which seems to be successful in the College of Engineering of the University of Cincinnati, has been imitated in some high schools. Experience shows that the plan operates successfully only when conditions are favorable and supervision is very active and efficient.

In its attempt to chronicle happenings in the high-school world, the *School Review* finds it necessary to quote the following statement published in the *New York Sun*. It is quite as important to record unsuccessful attempts at adoption of an educational plan as it is to report the optimistic side of educational history.

The co-operative "work-one-week study-one-week" classes at the Bushwick High School, Brooklyn, are to be discontinued. Practically all the co-operative students in Bushwick are in the commercial course, and the principal of the school, Milo F. McDonald, reports that the plan has proved unsatisfactory and an eventual drawback to the students.

The co-operative plan of secondary schooling is an arrangement whereby students work and study in alternate weeks. Two boys are assigned to each job, and they relieve each other, so that every position has a full-time worker. The students are paid for the time they work.

Co-operative classes gained considerable vogue a few years ago, and the Haaren High School was organized as a co-operative school. A year or two ago co-operative classes were formed at the Newtown High School in Queens, the Julia Richman High School in Manhattan, the Theodore Roosevelt High School in the Bronx, and the Bushwick High School.

"A close study of our co-operative course," Dr. McDonald said, "has shown that there is no general need of pupils to work alternate weeks. We have found that the alternate-week attendance has militated seriously against their ability to achieve success. Stenography, typewriting, and modern languages cannot be acquired with sufficient skill on the basis of alternate-week attendance. These subjects, however, constitute the backbone of business training for the average boy or girl."

Dr. McDonald approved the co-operative plan as applied to the industrial field of study and endeavor. He said that all the Bushwick students who desired to continue with the co-operative course would be transferred to the Newtown High School.

#### PUBLIC-UTILITIES COMPANIES AND EDUCATION

A number of the public-utilities companies in and near Chicago have adopted the policy of assisting their employees in securing higher education. The companies realize that an ambitious employee who is growing in business or industrial intelligence along the line of his employment is a profitable servant. He is also a satisfied employee, likely to remain in service, thus helping to reduce the loss caused by turnover in staff. With this in mind, the companies pay one-half the tuition in high school or college for any study that will directly or indirectly increase an employee's value to his company. The subjects pursued have to be approved by the company's educational officer.

The Public Service Company of Northern Illinois is carrying thirty-one men in full college work. The Middle West Utilities Company has 1,350 employees in various schools and 750 on the pay-roll who have completed courses. Ninety-eight employees of the Commonwealth Edison Company were thus subsidized this year. Forty employees of the North Shore Line are similarly provided with educational opportunities.

Some companies limit to \$50 the amount annually paid for any one student; others pay a full half of any tuition expense incurred provided the student passes his courses with credit. The companies express their attitude toward the arrangement by two phrases which they have coined. As a slogan for the men, they have adopted "grow on the job." As a description of their plan, they use the phrase "money-back education." They are frank in saying that the motive which prompts them is better service from better-trained workers.

#### THE EFFECT OF ACCELERATION

In the early days of the junior high school two somewhat conflicting arguments were generally advanced for the establishment of this new type of school—(1) economy of time as secured through the acceleration of the more capable pupils and (2) enrichment of the curriculum. There was and is a difference of opinion as to whether it is better to hasten children through the seventh, eighth, and ninth grades in two years by utilizing their full capacities or to retain them the full three years, exposing them at full capacity to a richer and more extensive curriculum. All educators are agreed that

either alternative is preferable to the marking-time process of the old seventh- and eighth-grade procedure.

Concrete evidence of the actual effects of acceleration is scattered and meager, doubtless because it is hard to obtain. A recent study made by C. H. Sackett and published by the St. Louis Division of Tests and Measurements is therefore especially pertinent and timely. The Blewett Junior High School (St. Louis) sends almost all of its ninth-grade graduates to the Soldan High School, located in an adjoining block. In January, 1923, two comparable groups of pupils entered the Soldan High School from the Blewett Junior High School. The first group, comprising twenty-seven pupils, had been accelerated, completing a six-semester course in two years; their median age was 13.5 years, and their median I.Q. was 125. The second group included thirty-four pupils, with a median age of 14.2 and a median I.Q. of 132. The fact that the pupils of the second group had been in the Blewett Junior High School for the ninth grade only explains why they, with the higher I.Q.'s, had not been accelerated. It is apparent that the first group, which was perhaps a little inferior to the second group in intellectual capacity, entered the tenth grade in the Soldan High School with a saving of seven-tenths of a year for the median pupil. In the senior high school both groups lost their identity as groups and were under similar conditions of instruction.

The January, 1926, graduating class of the Soldan High School included all the pupils of the two groups who had completed their secondary-school work in normal time. To compare their senior high school achievement, Mr. Sackett used the best criterion that was available—the academic record as represented by percentage marks in each subject at the close of each half-year. The members of the two groups maintained approximately identical records term by term and for the entire three-year course. The median marks for three semesters were 80.2, 78.8, and 81.0 as compared with 80.4, 78.0, and 80.6, respectively. The median mark of the accelerated pupils for all subjects in the three high-school years was 82.2; of the non-accelerated pupils, 82.7.

It may be admitted that percentage marks are not very reliable evidence of scholastic attainment and that the number of pupils considered is small. However, the evidence that was available to

the investigator indicated that the pupils who had been accelerated in the junior high school maintained their scholarship on a par with that of classmates who had not been accelerated. The saving of more than eight months in secondary education is no light consideration if it can be accomplished without compensating loss.

#### A JUNIOR COLLEGE IN NEW YORK STATE

For many years the State Department of Education of New York has refused to recognize junior colleges. Even now official sanction for the use of the name "junior college" is withheld. The department puts itself on record as permitting the establishment of a junior college but protests loudly that the New York institution differs from institutions in the "West." The statement issued by the department is as follows:

At its meeting on December 9 the Board of Regents granted a provisional charter for the establishment of the Sarah Lawrence College for Women at Bronxville, Westchester County. In a measure, this is a departure from ordinary practice in New York State in that it establishes an institution the objective of which is to give a course of study in liberal studies for two years only. The college will grant no degrees, but at the end of the successful completion of the two-year course a student will receive a diploma. If she wishes to continue her college course, she may then take her last two years of work in a college where the four years of work are given.

By some the institution has been spoken of as a "junior" college, but the Regents eliminated the word "junior" from the title for the reason that it was felt that confusion might arise in the public mind and a conclusion deduced that the college was similar to a type commonly prevailing in the West, where a one- or two-year college course is merely superimposed on a high school. The new institution meets all the requirements laid down by the Regents for a full four-year college in the matter of finances, buildings, equipment, and faculty. The only real difference is that it provides a two-year instead of a four-year course. It is hoped that it will open formally in 1928.

It is respectfully suggested to the members of that august and ancient body, the Board of Regents of New York State, that they make a trip collectively or singly to Columbia, Missouri, and visit Stephens College, a junior college for women. They will learn something. They will learn how narrow and provincial has been their idea about junior colleges and how humorous is their present pronouncement. Some of the officials of the New York State Department of Education who have traveled beyond Lake Erie ought to

try to save the Board of Regents from thinking wholly in such concrete terms as "finances, buildings, equipment, and faculty."

It is not at all unlikely that the time will come in a generation or two when New York State will throw off the yoke of formalism that now rests on its educational neck and will take advantage of the experience which has accumulated in the North and West and South, where boards of regents are fortunately not known and where educational experimentation has moved forward at a gratifying pace.

## OUR JUSTIFICATION FOR THE JUNIOR HIGH SCHOOL

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C. O. DAVIS  
University of Michigan

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In order to secure first-hand evidence as to whether the junior high school is justifying itself throughout the country, the writer recently communicated with twenty-five of the best-known junior high schools in the Central West. Three specific questions were asked:

1. Is the junior high school justifying itself in your community?
2. If so, what is your evidence?
3. By what means are you making the articulation with the senior high school smooth, easy, and effective?

Replies were received from twenty different schools. Of these, eighteen said emphatically that the junior high school is justifying itself; two said that it is not.

As evidence of the success of the school, the following excerpts from the letters are quoted.

"It has brought better instruction into the seventh and eighth grades."

"It has made the transition from the elementary school to the high school easier."

"It has helped the building situation."

"It has made possible better provisions for individual differences."

"Pupils are attracted by the program of studies and are enthusiastic about the work."

"Parents and teachers agree that the junior high school is more satisfactory from the standpoint of interest and ability to make progress with boys and girls of adolescent years."

"The city is building an additional junior high school because the first one built is so successful."

"The adjoining country districts have abandoned their seventh

and eighth grades and are transporting the pupils to the junior high school."

"The school is very popular with the public and the parents."

"There is increased attendance in the seventh and eighth grades and continuance into the senior high school."

"Pupils who begin certain subjects in the junior high school do much better work in the advanced courses in those subjects than do pupils who begin the study of the subjects in the senior high school."

"Decided interest is shown at the meetings of the Parent-Teacher Association."

"Four new junior high school buildings erected in the city in the past four years are pretty good evidence of how the patrons feel about the school."

"Our pupils are awakened to an interest in life, are finding the paths to particular niches in life, and are being well started on those paths."

"There is increased interest on the part of the pupils in school and community life."

"There has been training in the ideals of democracy."

"In all tests that have been given, the junior high school pupils have ranked above the pupils from schools organized on the old basis."

"The organization of the junior high school permits a much better plan of co-operative government and school citizenship, which we hope will be evident in future adult citizenship."

"The junior high school permits the reorganization of the school curriculum in a way that would never be possible under the old organization."

"The plan permits some freedom of election of studies on the part of the pupils."

"Of the total number of pupils promoted from the ward schools in the spring of 1926, only one failed to report to the junior high school in September, and only *one* out of 150 who were in the junior high school last year failed to return to school. Of the total number promoted to the junior high school in the last three years, 99.9 per cent continued into the junior high school. Of the total enrolment in the junior high school during the past three years, namely, 1,581,

only 62 dropped out before completing the ninth grade for reasons other than economic difficulties or health."

"Boys who were disorderly in the ward schools give no trouble in the junior high school because of the different environment, the greater responsibility placed on them, and the better provisions made for individual differences."

"The children are much happier because of the opportunities for participation in physical education, practical arts, and school affairs."

"I was surprised at the inquiry. My studies and experience had led me to believe that there was very little controversy in cities of any size concerning the advantages of the junior high school."

Possibly it is desirable that the replies of several cities should be given in full.

#### LOGANSPORT, INDIANA

"In answer to your three questions, I believe we can truthfully state without exaggeration that the junior high school system has so thoroughly advanced the whole school system that it is now recognized by educational leaders all over the state as one of the best systems, if not the best system, in Indiana, whereas, prior to its development—that is, the junior high school—it ranked among the least efficient.

"We have two junior high schools, both serving a great purpose. The James Whitcomb Riley Junior High School is so situated that it is becoming a great community center for a section of the city which needed such work most. The Lincoln Junior High School, which shares in part the enormous high-school building, serves as a means of articulation with the senior high school. Pupils of both junior high schools who are deficient in one or two subjects may enrol in classes in both the Lincoln Junior High School and the senior high school, thereby gaining the advantages offered by the two institutions.

"I have made a study of the junior high school problem in this state, and I find that these facts exist: Where junior high schools were well founded and well provided for at the beginning, they have been successful. The city of ——, which has a population of approximately 80,000, failed, because it tried to house all the pupils

in the city in one building. You can readily see the failure such an action would bring. The city of —— has not progressed with its junior high school system because it did not see fit to jeopardize the positions of some of the older elementary-school teachers who did not meet the requirements for junior high school instructors. I am told that the superintendent of that city is not friendly toward the junior high school project, although I see by our local journals that he is fighting for the junior college.

"I merely mention these two outstanding places where the system has not made progress. Twenty-five or thirty cities such as our own and many others have made a success of it.

"Last year was the first year our three-year program in the junior high school had any effect on senior high school graduation. The total number graduated last year from the senior high school was 136. Never before in its history did it graduate more than 112. This year it seems that the graduating class of the senior high school will number between 150 and 200 pupils.

"Please accept these statements for what they are worth to you. I believe future investigation will prove to you that any failure brought about in this phase of school work is due in part to jealousy and in part to those who fear to let a new thing prosper lest they lose their jobs."

DETROIT, MICHIGAN

"Standard tests given on a city-wide basis show that the academic work in the intermediate schools is being done as well in those schools as in the old type of schools, in spite of a greatly reduced time allotment. Whatever gain there is in health education, practical arts, fine arts, foreign languages, and commercial work may thus be credited to the intermediate school, since many of these subjects are not offered in the traditional type of school and the time allotment in others is very much less there than in the intermediate school.

"The intermediate school is, in my opinion, generally popular with the patrons of the school. It would not be difficult to cite case after case of parents who prefer this type of school to the old type of school, and it is very rarely that cases in which the reverse is true come to my attention.

"As a result of the socialized program of these schools, it is my opinion and the opinion generally of those familiar with the situation that pupils have developed a general social ability much greater than that previously developed by the traditional type of school. This is a thing difficult to measure but easy to notice."

YOUNGSTOWN, OHIO

"As to your first question, I should not hesitate to answer, 'Yes.' I am certain that this answer expresses the judgment of teachers, students, parents, city officials, the courts, and all the agencies concerned in social and civic betterment.

"These factors may be taken as evidence: (1) More children are staying in school. (2) More children are finding themselves. (3) Employers say that pupils are being better prepared for the work in which they engage. (4) Children are developing more initiative and more responsibility through the club work. (5) Parents are taking more interest in the schools and are willing to pay more for them. (6) Salaries are being raised, and a better type of individual is entering the teaching profession. (7) Teachers who long 'stood still' are broadening out and completing college courses. (8) Curriculums are being made more practical for those who cannot go to college. (9) Schools are rendering a much broader and more intensive service. (10) Fewer cases of juvenile delinquency are coming into court. (11) A higher civic consciousness is evident. (12) The district is becoming a much more desirable community in which to live, according to real-estate agents."

JACKSON, MICHIGAN

"In reply to your letter asking three questions relative to the junior high school, I will say that I believe that the junior high schools of this city have amply justified their creation and that most, if not all, of the aims and benefits anticipated have been realized in a large degree. The following are some of the observations that I have made during the past eight years as principal of the East Intermediate School in contrast with my experience as principal for three years in one of the large ward schools of this city.

"1. The segregation of adolescent youth has made possible the administration of many school activities that were impossible in the

former so-called 'departmental' organization of the upper grades, with the very gratifying result that the 'school spirit' of teacher and pupil has been wonderfully improved.

"2. As a result of pupil activities made possible through our junior high school organization, pupil leadership and pupil responsibility have been developed in a remarkable way.

"3. Through the appearance of community civics in the curriculum and the working out of the 'social-group' idea, the pupils have a better and more concrete idea of good citizenship than ever before.

"4. There is better teaching in the junior high school now than there was formerly in the upper grades, because the work has attracted better-trained teachers.

"5. Through the correlation of hygiene, physical training, medical inspection, and dental clinics, our pupils are enjoying much better health than formerly.

"6. One of the most gratifying results has been the improvement in scholarship. Through our system of counseling and educational guidance, failures have constantly diminished. Through the added incentive of an excellent Honor Roll Award system, the best in the 'bright' pupil is brought out.

"7. An elastic program of studies with maximum and minimum requirements permits acceleration and retardation.

"8. A varied program of studies and considerable freedom in choice on the part of the pupil make it possible to 'fit the school to the pupil' on the basis of individual differences—a thing never thought of in the old order.

"9. Pupils from the junior high school enter the senior high school equally as well prepared as those from the former departmental school, and pupils who have no capacity for high-school work are better prepared to enter industry than formerly.

"10. I believe in the principle of prevocational or exploratory courses of the junior high school leading to the vocational work of the senior high school."

HOLLAND, MICHIGAN

"In my letter I am answering your questions as to the value of the junior high school as I see it. Knowing that my view might be

biased, I asked a few of the townspeople to answer the three questions. I will present their answers just as given. For myself I answer as follows:

"The eighth grade is no longer thought of as a reasonable stopping place. Not a few but many finish the twelfth grade.

"Parents of children now attending non-public schools are asking whether they can send their children to the junior high school for printing, sewing, cooking, shopwork, etc., showing that the junior high school has something to offer which the community wants.

"The co-operative form of government in the junior high school tends to make better citizens of our boys and girls, as is obvious in their conduct on the streets.

"The pride of the parents in our short exploratory courses (no credit is lost if a child finds he has no aptitude for a certain line of work) is evident.

"The cashier in the First State Bank writes:

"The junior high school in our city is doing a splendid work. The principal and the teachers are vitally interested in carrying out a helpful program. There is wonderful co-operation. The influence of the junior high school is felt in all the homes out of which boys and girls come for instruction.

"The instruction given and the personal interest that is shown by the instructors in the pupils are having a wonderful effect on their lives.

"A woman patron says:

"The junior high school fills a very important place in the life of the young people of Holland. As a result of student government, there is a better spirit of good citizenship in the community. It is the exception to see or hear anything on the streets that approaches rowdiness. The courses offered in special work and the varied activities make school much more attractive to the young child than formerly. This is important because many a boy or girl forms a dislike for school at this age that may cause him to terminate his education as soon as the law allows.

"The people of Holland are proud of the junior high school, for I have never heard anything but praise, certainly no adverse criticism that I could pass on to you.

"A man says:

"The junior high school justifies itself to the community by (1) giving the pupils a wider choice of subjects and a chance to explore their fitness along certain lines, (2) providing for individual differences, (3) bringing pupils into contact with a larger number of teachers (some men), (4) giving a greater

variety of interests, (5) giving a greater chance for participation in student activities and making possible a large number of activities.

"A woman says:

"As an institution, the junior high school justifies itself in that it is a great leveler. It breaks down factions that may have been established in the elementary schools because of residence in selected districts or the reverse.

"In the junior high school the pupils are thrown together at an early age and are classified only as to mentality.

"Better opportunities are afforded for choosing one's future work.

"Through centralization, better-equipped shops for vocational work can be maintained and vocational guidance provided.

"That it is bridging the gap between the eighth grade and the high school is shown by the increased attendance all through the high school."

#### FOND DU LAC, WISCONSIN

"Your letter has been turned over to me for reply. To anyone working in a junior high school, the benefits are so obvious that one usually takes them for granted. Let me mention several at length.

"Any institution which is of benefit to the children is of benefit to the community. Our junior high school makes possible *expert instruction regularly* in the special subjects, such as shopwork, sewing, cooking, music, art, and physical education. True, it is possible to have these activities carried on in various specified centers. In practice, it usually happens that they are limited to the practical arts, such as shopwork and home economics, with the classes meeting only two or three times a week at the most. Our seventh- and eighth-grade pupils take practical arts, fine arts (music and art), and hygiene and physical education daily, each sixty minutes a day. This means that three hours each day is devoted to the so-called 'special' subjects, leaving another three hours for mathematics, English, and the social studies. If present-day theory as to the function of the schools is correct, the benefits to the young people of the community can be secured only by segregating them in one building and offering them this enriched curriculum.

"I think that equally important is the fact that our junior high school makes for the worthy use of leisure by providing a large variety of extra-curriculum activities. We have forty school-time clubs and fifteen after-school activities. These, or most of them at

least, would be impossible if the thousand pupils in our school were in nine separate buildings. With a faculty of fifty-five, it is not difficult to secure efficient leaders to sponsor the various activities. Is it necessary to go into detail to demonstrate the ultimate value to the community?

"Not the least community benefit is the opportunity presented for training in the ideals and practice of democracy. The pupils are approximately the same age, and, although their interests vary, they have many which are common to early adolescence. This makes it possible to treat the school as a community and thus provide training in leadership and fellowship, both of which are necessary in a democracy. That our school makes this contribution, no one connected with it will doubt."

#### ADVERSE CRITICISMS

The two following statements are the only ones of the twenty received which appear to represent a disappointed view. Each was written by a man who is not now connected with the particular system criticized. For obvious reasons, proper names are omitted here.

"No, not as a separate institution with special functions to perform. Reasons for failure:

"1. Superintendent interested in name only.

"2. Principals are advanced to junior high schools from elementary schools without being required to take any special courses in junior high school work.

"3. Teachers are too academic. They have no interest in shop courses. There is practically no correlation between shopwork and academic work. Shopwork is an isolated affair.

"4. The junior high school has never been given a chance. The senior high school is the only school in the opinion of the superintendent. The superintendent has very little interest in the slow or mentally deficient children.

"5. The juniors are forced to take a large number of beginning teachers each year. Any old fossil with a political pull can get into the junior high school. It's a dumping ground."

"Your inquiry concerning the junior high school has just been

received, and I am anxious to answer the questions. I am going to answer from the point of view of ——, ——, as you will remember that I was principal of the —— Junior School in that place before coming here. My acquaintance has been so brief in this city that I cannot give you answers that would represent my own observations.

"1. 'Is the junior high school justifying itself in your community?' The —— Junior School is one of three junior schools in ——, and, although it is just three years old, it is at least thirty-five years behind time in construction. There are one thousand children enrolled, but there are only twenty classrooms, two shops, and two home-economics rooms. This means that any exploratory work is handicapped, if not impossible. There is really nothing but departmental upper-grade work, and the people who were led to believe that *wonders* would be performed and *much* money saved are a bit provoked.

"Understand me correctly—I worked for several years in senior high schools before taking a year of graduate work, when I became more and more interested in junior high school work. I thoroughly believe that the junior high school has come to stay in the communities where the people have not been allowed to think that they have what they have not."

## AN EXPERIMENT AT ROLLINS COLLEGE

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GEORGE E. CARROthers  
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Rollins College, the oldest institution of higher learning in Florida, was formerly under the control of the Congregational Board. It is now a private institution, definitely Christian, under the control of a self-perpetuating board of trustees. During more than two score years it has accomplished much good but has traveled in the traditional path followed by most small colleges. Somewhat more than a year ago the Board of Trustees persuaded Dr. Hamilton Holt to take the helm and become the leader in the development of the institution. A little later a decision was reached to build an entirely new college plant. Additional faculty members, well trained and experienced, were selected. Salaries were increased to a point where they are better than those usually paid in a small college, and plans are being made to pay still better salaries. Freedom for work in classes and with students has been granted to all. The desire is to do well the work of a small college with no attempt to imitate the university or research school.

The one unique feature of the Rollins College educational program is the abandoning of the formal lecture-examination method for the two-hour seminar, laboratory or workshop plan. This was proposed by President Holt soon after his arrival in Winter Park and was discussed with the new dean during the year. The president and the dean found themselves in entire agreement that the old lecture system did not give opportunity for the necessary vital contact between students and teachers. Colleges and universities are too much like great factories, turning out an ever increasing number of unit products instead of developed individuals.

At a faculty meeting during the first week in the autumn of 1926 the proposal was thoroughly discussed and unanimous decision was reached for the entire college to adopt at once the two-hour teaching-study plan. Accordingly, all schedules were remade on this basis, and thus the work has continued since September, 1926.

## THE TWO-HOUR SEMINAR PLAN

Under the usual plan for college teaching, the instructor gives a series of lectures from two to five times a week. He assigns readings, sometimes in a chosen text and always in reference books and magazines. At the end of a stated period a formal examination is held; the papers are marked either by the instructor or by an assistant, and the final marks are recorded. The limitations of such a system for genuine education of the development type are evident.

The system which is being worked out in Rollins College is the two-hour seminar or workshop plan, the purpose of which is to bring the student and the instructor into the closest possible contact. Class periods are scheduled from 8:15 to 10:15 A.M. and from 10:30 A.M. to 12:30 P.M., with chapel or assembly from 10:15 to 10:30 A.M. Students sign up for classes in the usual manner, arranging their schedules so that two full hours may be spent with each instructor. The theory is that immature students who have not learned how to study effectively need the help of an instructor most when they are preparing their lessons rather than after they have learned them or failed to learn them. In some instances, particularly in the case of the younger untrained students, the instructor at times has to approach the high-school method of supervised study and not only teach the student how to prepare his work but see that he gets it done. For the most part, however, the conference plan at Rollins College is in no sense the supervised-study plan which has been tried out in many secondary schools. In time, when a more careful selection of students is made, when the faculty comes to understand the plan better, and when the students come to realize that the responsibility of securing an education is dependent on their actions and attitude, the need for even a partial use of the supervised-study method will entirely disappear.

During the two-hour period the students spend their time in studying, in conferring with the instructor, in holding discussions in small groups, in writing class papers, in preparing outlines, and in studying other matters incident to the mastery of the subject. At times the whole group may be called together for a conference on a common topic, with the instructor as the leader in the discussion. The students are allowed to leave the classroom at any time they

desire. They return at their own pleasure and quietly resume their work where they left it. In some courses the more mature students are not held to full attendance at the two-hour session. They are permitted to prepare their work in any place and manner they may desire. As occasion demands, they return to the classroom to consult the instructor or to join in a general conference or in any other necessary departmental activity. Most of the students prefer to remain in the classroom with the group, since this room usually contains the reference books, maps, and other equipment necessary for their work.

General outlines of the courses are furnished to the students that they may know the approximate expectation for the semester or year for each course. Specific outlines, references, topics, and questions are in many instances supplied by the instructor to facilitate the more economical study and mastery of the subject. The "lock-step" method of procedure has been eliminated, and the students are permitted to progress as rapidly as they wish or are able.

In the course taught by the writer—a course which he has taught in other colleges—a much more varied and extensive list of reference material is supplied to the class than formerly. The concisely stated pet phrases which other classes have so generously given back to him are missed. On the other hand, it is noted that the students are developing ability to compare and criticize ideas set forth by different authors and both to formulate and to express ideas of their own.

#### THE TEACHING LOAD

Colleges usually assign an average of fifteen credit hours of teaching to each instructor. The laboratory work of two hours is usually thought of as equivalent to one hour of formal lecture-teaching. Even though the teaching in Rollins College is entirely on the laboratory or workshop basis, it was considered unwise to give to any instructor fifteen credit hours of teaching or thirty hours of actual classroom work. The load was reduced to an average of ten credit hours for each instructor. The classes, too, are kept to a small enrollment, and other necessary requirements are adhered to in order to facilitate the best kind of teaching and learning. During the first semester in which the plan was in operation each instructor had an average of only eighty students a week. The average class size is

between fourteen and fifteen. Some of the freshman classes average from twenty to twenty-five.

#### SOME OBSERVATIONS ON THE TWO-HOUR PERIOD

1. It was necessary to employ several additional teachers immediately upon deciding to change to the conference plan of teaching in order to reduce the teaching load of each instructor from fifteen credit hours to an average of ten. This was deemed necessary in order that there might be greater opportunity for contact between students and instructors.
2. A classroom had to be assigned to each instructor in order that he might develop a departmental library and secure other adequate equipment for his specific work. This has made it possible for each instructor to arrange and decorate his room in a manner suggesting the subject being taught.
3. Provision had to be made for purchasing additional reference books, dictionaries, etc., for the departmental libraries. Additional chairs, tables, and other equipment for each room had to be provided, since each instructor has control of his own room throughout the day.
4. At first some members of the faculty found it difficult to rearrange their methods of teaching, to discontinue the formal lecture, and to work out a satisfactory plan for the best use of the two-hour period. Most of them have succeeded in making the change, and all of them believe that it is very much worth while to continue the two-hour teaching period.
5. At first the students, particularly those in the upper classes who were accustomed to the lecture method, found some of the periods irksome. After seven or eight weeks of trial, they voted by secret ballot three to one to continue the present plan of study. After three months of trial, a student association meeting was held with no faculty members present, and there were apparently not more than eight or ten students opposed to the plan.
6. Small classes; individual teaching rooms; departmental reference books, libraries, and equipment; additional teachers; and other requirements increased the necessary running expenses of the college approximately 30 per cent.

## THE DUTIES OF HIGH-SCHOOL PRINCIPALS IN THE STATE OF NEBRASKA

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The purpose of the study here reported was to determine the duties of high-school principals in the state of Nebraska. In order to carry out such a study, it was necessary to ascertain the amount of time devoted to the various duties. The data used were obtained from 144 principals of high schools in Nebraska accredited by the University of Nebraska.

The study was carried on by means of a questionnaire of the work-sheet type. It consisted of seven daily work sheets, which provided for information for every day in the week, including Saturday and Sunday. In addition to these daily work sheets, two blank sheets were submitted. One was for seasonal duties; the other, for personal information. From the information on the daily work sheets and on the seasonal work sheet, a cross section was made. This cross section furnished a picture of each principal's duties.

No attempt was made to classify the data according to standards set up by authorities, because it was felt that the rapid expansion of the high school in the number of pupils enrolled and in the scope of its activities would make it necessary to reclassify the principal's duties and to set up new classifications.

For convenience in handling the data and in order to make the results more applicable to the different sizes of high schools, the schools were classified on the basis of enrolment. A fivefold classification of schools was adopted, as follows: (1) schools with enrolments of less than 100 pupils, (2) schools with enrolments of from 100 to 199 pupils, (3) schools with enrolments of from 200 to 299 pupils, (4) schools with enrolments of from 300 to 499 pupils, and (5) schools with enrolments of 500 or more pupils.

After the data for each item on the questionnaire were tabu-

lated, the median was found for each class of items, the different classes of schools being kept separate.

Table I, which shows the median number of minutes devoted by the high-school principals to various duties, summarizes the results obtained from the study. The table is to be read as follows: Principals in schools having less than 100 pupils spend 209.5 minutes a day in teaching classes; principals in schools having 100-199 pupils spend 181.9 minutes a day in teaching classes; principals in schools having 200-299 pupils spend 127.5 minutes a day in teaching classes; principals in schools having 300-499 pupils spend 127.5 minutes a day in teaching classes; and principals in schools having 500 or more pupils spend no time in teaching classes. In schools of all sizes, principals spend 190.0 minutes a day in teaching classes.

The totals as they appear in Table I are not the totals of the medians but rather the medians of the total time used in all the subdivisions of the major items.

It must be kept in mind that the data do not represent an ideal or standard; they are, rather, a measure of the actual practice as it exists in the state of Nebraska. They may be used by other high-school principals as a guide or measuring stick. It is possible for the principals in the field to compare their duties with those of others in the state and increase their efficiency. The data may assist principals to avoid failure if they can sense the relative values regarding their duties. Furthermore, the prospective principal may obtain from the data some idea of his duties and responsibilities. Again, the study may aid boards of education and superintendents in placing certain duties and responsibilities on the principal. The results of this study should be of value to educational institutions in the training of individuals for the high-school principalship, since it shows the actual practice as it exists in the state of Nebraska.

In order to secure a thorough understanding of the principalship and in order to make possible a fair and just comparison of principalships, it was deemed necessary to obtain information relative to the educational preparation, educational experience, and salaries of the principals. Table II is a compilation of such data. This table is to be read as follows: the principals in the schools having less than 100 pupils have spent a median of 4.2 years in educational preparation

TABLE I  
MEDIAN NUMBER OF MINUTES A DAY DEVOTED BY PRINCIPALS TO  
VARIOUS DUTIES

	Schools with Less than 100 Pupils	Schools with 100-199 Pupils	Schools with 200-299 Pupils	Schools with 300-499 Pupils	Schools with 500 or More Pupils	All Schools
<b>Instructional load:</b>						
1. Teaching classes . . . . .	209.5	181.9	127.5	127.5	.....	190.0
2. Class preparation . . . . .	32.1	22.9	*	*	.....	26.7
3. Helping pupils . . . . .	26.3	4.9	.....	.....	.....	4.9
4. Correcting papers . . . . .	20.9	11.8	.....	.....	.....	*
Total . . . . .	281.2	223.1	127.5	137.5	.....	230.0
Percentage of school day . . . . .	56.0	46.9	29.1	24.3	.....	49.1
<b>Administrative load:</b>						
1. Superintendent's conferences . . . . .	*	*	1.0	.....	6.5	*
2. Teacher conferences . . . . .	*	*	10.5	16.5	32.5	*
3. Pupil conferences . . . . .	.....	.....	8.0	41.0	23.5	*
4. Parent conferences . . . . .	.....	.....	.....	.....	5.5	*
5. Schedule-making for pupils and school . . . . .	2.4	2.9	3.5	9.0	*	2.1
6. Inspecting building, equipment, and grounds . . . . .	5.3	5.3	14.5	18.5	13.3	8.4
7. Handling attendance and discipline cases . . . . .	10.1	2.5	42.5	7.5	5.0	*
8. Entertaining visitors . . . . .	.....	.....	.....	.....	.....	*
Total . . . . .	11.5	22.3	45.5	114.5	141.0	17.0
Percentage of school day . . . . .	2.3	4.7	10.4	20.3	31.7	3.6
<b>Instructional supervision:</b>						
1. Class visitation . . . . .	.....	.....	17.5	73.0	62.5	*
2. Teacher conferences . . . . .	.....	.....	10.5	16.5	70.0	*
Total . . . . .	.....	.....	28.0	67.5	136.5	*
Percentage of school day . . . . .	.....	.....	6.4	11.9	30.6	*
<b>Professional load:</b>						
1. Conducting and attending teachers' meetings . . . . .	*	*	4.0	14.3	12.0	*
2. Special committee work . . . . .	.....	.....	.....	.....	*	*
3. Professional reading . . . . .	*	.....	12.5	25.0	.....	*
Total . . . . .	*	*	12.5	26.0	50.5	2.5
Percentage of school day . . . . .	*	*	2.8	4.6	11.3	0.5
<b>Other supervision:</b>						
1. Supervision of study hall, lunchroom, corridors, and library . . . . .	117.5	110.7	85.0	41.0	.....	113.6
Percentage of school day . . . . .	23.4	23.2	19.4	7.3	.....	24.2
<b>Clerical load:</b>						
1. Attendance and tardiness . . . . .	3.0	5.9	25.6	43.5	.....	7.6
2. Reports and records . . . . .	.....	8.9	27.0	17.5	.....	*
3. Office routine . . . . .	32.5	33.3	35.0	82.0	96.5	34.7
Total . . . . .	36.9	44.3	107.0	141.0	96.5	51.0
Percentage of school day . . . . .	7.3	9.3	24.4	25.0	21.7	10.9

\*Negligible.

TABLE I—Continued

	Schools with Less than 100 Pupils	Schools with 100-199 Pupils	Schools with 200-299 Pupils	Schools with 300-499 Pupils	Schools with 500 or More Pupils	All Schools
<b>Extra-curriculum load:</b>						
1. Arranging school programs.....	7.7	4.9	2.0	5.5	21.0	6.8
2. Sponsoring clubs and classes.....	10.7	17.7	10.7	27.5	.....	12.0
3. School publications.....	*	*	*	.....	.....	*
4. Music directing and instructing.....	*	*	*	.....	.....	*
5. Coaching plays, debates, and oratory	16.3	6.6	*	.....	.....	10.7
6. Coaching athletics.....	22.0	40.5	5.0	.....	.....	20.9
Total.....	55.5	75.8	33.0	37.5	21.0	54.6
Percentage of school day.....	11.0	15.9	7.5	6.6	4.7	11.7
<b>Community activities:</b>						
1. Church work.....	*	*	*	*	.....	*
2. Social activities.....	*	*	.....	.....	.....	*
3. Civic activities.....	*	*	.....	.....	*	*
<b>Other activities:</b>						
1. Recreational activities.....	*	.....	.....	.....	*	*
2. Activities from which additional income is derived.....	*	*	*	.....	.....	*
Length of school day in minutes.....	502.6	476.2	438.5	565.0	445.5	468.7
Length of school day in clock-hours.....	8' 23"	7' 56"	7' 19"	9' 25"	7' 26"	7' 49"

\* Negligible.

beyond the high school; the principals in the schools having from 100 to 199 pupils, 4.3 years; the principals in the schools having from 200 to 299 pupils, 4.4 years; the principals in the schools having from 300 to 499 pupils, 4.3 years; the principals in the schools having 500 or more pupils, 5.3 years; and the principals in all sizes of schools, 4.2 years.

The following facts are evident from a study of Tables I and II.

1. The instructional duties, such as teaching classes, preparing lessons, helping pupils with their work, and correcting papers, constitute the largest load for the principals in the smallest schools. Fifty-six per cent of the day is devoted to such duties. The load decreases as the size of the school increases. In the largest schools the principal devotes no time to instructional duties. It is evident that the principal in the smallest schools is primarily a teacher.

2. The administrative load is very light in the smallest schools, but it steadily increases as the size of the school increases. Approximately one-third of the day is devoted to administrative duties in the largest schools.

3. No time is devoted to instructional supervision in the schools

having less than 200 pupils. In the largest schools approximately one-third of the day is devoted to instructional supervision, such as classroom visitation and conferences with teachers. From these findings it is shown that the principal in the largest schools is primarily an administrator and supervisor.

4. The larger the high school, the greater the amount of time devoted to professional duties. In the schools having less than 200

TABLE II  
EDUCATIONAL PREPARATION, EXPERIENCE, AND SALARIES OF PRINCIPALS

	Schools with Less than 100 Pupils	Schools with 100-199 Pupils	Schools with 200-299 Pupils	Schools with 300-499 Pupils	Schools with 500 or More Pupils	All Schools
Median number of years of educational preparation beyond the high school . . .	4.2	4.3	4.4	4.3	5.3	4.2
Median number of years of graduate work . . .	*	*	*	0.8	1.3	*
Percentage having graduate work . . .	4.6	17.7	43.8	50.0	100.0	19.4
Percentage with no degree . . .	30.0	13.0	12.0	0.0	0.0	20.1
Percentage with Bachelor's degree . . .	70.0	82.0	88.0	83.0	33.0	75.0
Percentage with Master's degree . . .	0.0	5.0	0.0	17.0	67.0	4.9
Median number of semester hours in administration and supervision . . .	4.3	4.7	6.0	4.5	14.5	4.9
Median number of semester hours in educational psychology . . .	4.5	6.0	6.3	5.5	11.0	5.2
Median number of semester hours in other education courses . . .	9.1	11.2	19.0	15.5	17.5	10.8
Median number of total semester hours in education courses . . .	17.6	24.5	34.0	24.5	52.0	22.3
Median number of years of educational experience . . .	4.6	5.8	6.6	9.0	13.0	5.6
Median number of years in principalship . . .	2.0	3.0	3.5	3.5	9.0	2.9
Median salary . . .	\$1,443	\$1,668	\$1,950	\$2,100	\$4,150	\$1,558

\* Negligible.

pupils the time devoted to such duties is negligible; that is, less than one-half of the principals reported any time devoted to such activities.

5. A great deal of time is spent by the principals in the smallest schools in other supervision or control jobs, such as maintaining order and controlling study halls, lunchrooms, corridors, and libraries. Approximately one-fourth of the day is devoted to such work. The amount of time decreases as the size of the school increases. The principals in the largest schools devote no time to such duties.

6. The clerical load is the largest in the schools having from 300 to 499 pupils. The load decreases as the size of the school decreases.

7. The extra-curriculum load is important in point of time in the schools having less than 200 pupils. It decreases as the size of the school increases.

8. Very little time is devoted to church work; social, civic, and recreational activities; and activities from which additional income is derived.

9. The median number of semester hours of work in education for the principals of the state is 22.3, or approximately two-thirds of a year's work. The graduate work in education is negligible; that is, less than one-half of the principals reported such work.

10. The median number of years of educational experience is

5.6. The median number of years in the principalship is 2.9.

## THE SOCIAL EXPERIENCE OF JUNIOR HIGH SCHOOL PUPILS. I

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### OBJECTIVES OF THIS REPORT

The development of an efficient citizenship has been one of the outstanding aims of public education for more than a century. At the present time, in lay and professional circles alike, there is a pronounced dissatisfaction with the results of the work of the schools in this direction. On every side it is hoped that the reorganization of Grades VII, VIII, and IX into the junior high school will be attended by substantial improvements in the preparation of pupils for the increasingly difficult responsibilities of citizenship in the United States of today.

One of the outstanding weaknesses of the older plans of education for citizenship was their almost complete dependence on the intellectual and theoretical training of the courses of study in history and civics. No one can deny the absolute necessity of adequate training in this direction. The modern school, on the other hand, recognizes as equally indispensable adequate training in the practical arts of social experience. It emphasizes the necessity of preparing the future citizen for the business of co-operating with people in organized groups. The socially useful man or woman is one who is able skilfully to work with other people in such institutions as the church, the government, and the political party, in voluntary civic, patriotic, philanthropic, and vocational associations, and in fraternal and recreational organizations. Impressed with the significance of training in this direction, the modern school thinks of itself as a community similar in nature to the community at large. It organizes the pupils into groups that in kind and in function are like the organized groups of the adult community. It is conscious, also, of the fact that numerous organizations for young people outside of the school, as well as the economic activities of the community, are

making substantial contributions to the social education and experience of its pupils.

In order that it may know how well the obligation to give its pupils adequate training in the practical arts of social experience is being fulfilled, it is necessary for every school to take an inventory, from time to time, of the opportunities that are available to its pupils and the extent to which the pupils make use of their opportunities. The purpose of this report is to describe a simple technique for taking an inventory of this kind, to point out the major types of social experience that are available, to suggest standards with the aid of which the adequacy of available opportunities may be determined, and to make recommendations for the improvement of common shortcomings in the program of social experience.

The school which was selected for the purposes of this investigation is the Alexander Graham Junior High School, Charlotte, North Carolina. In this school are enrolled 903 boys and girls, or approximately one-half of the junior high school pupils of Charlotte. The school includes the seventh, eighth, and ninth grades and is housed by itself; the pupils represent a cross section of the social and economic groups of the city. It is the oldest of the junior high schools of Charlotte and has enjoyed the advantages of a continuous administration over a number of years. The data were collected by means of two question blanks which were filled out by the teachers under the direction of the writer and by the pupils under the direction of the teachers. The data that are presented describe conditions as they obtained in November, 1926.<sup>1</sup>

#### SCHOOL ORGANIZATIONS AVAILABLE TO PUPILS

It is convenient to distinguish two general types of pupil organizations in the school. There is, on the one hand, a group of organizations to which every pupil belongs or to which he is related in some direct way. These organizations usually perform functions of gov-

<sup>1</sup>This study was undertaken at the request of the Commission on Secondary Schools of the Association of Colleges and Secondary Schools of the Southern States with the aid of funds provided by the association. It was made possible by the generous co-operation of the principal, A. M. Elliot, and the teaching staff of the Alexander Graham Junior High School, Charlotte, North Carolina. Owing to the limitations of space, several parts of the report are treated briefly.

ernment or provide other social experiences which all pupils should gain. They may be called the "core" of the social-experience program. The second type of organizations includes those which pupils join in pursuit of a special interest of some kind. They may be described as the voluntary element of the program. A well-balanced offering of pupil organizations will include adequate representation of each type.

*The home-room organization.*—In the school which is the subject of this investigation, the core organizations are represented by the home room, the assembly, the student council, and the three class organizations. The home-room group is the fundamental and primary social unit in this school, as it should be in every school. Every pupil is a member of a home room. Six of the home rooms are composed of boys only and eight of girls only. The remaining rooms are composed of both boys and girls. This division according to sex is arranged whenever possible because the faculty believes that in this way a stronger group spirit can be aroused, especially among the younger pupils. This arrangement is believed, also, to facilitate the frank discussion of certain topics, such as the proper behavior of boys and girls toward each other in the corridors, which ought to be considered by all pupils. It leads, moreover, to a strong rivalry between the different rooms in the accomplishment of the general tasks of the school, such as securing subscriptions to the school paper from 100 per cent of the pupils.

For the use of the home rooms, the time schedule provides a thirty-minute period three days each week. Whenever a group desires to do so, they may convene at 8:30 instead of 8:45 A.M. and thus have a forty-five-minute period. Time provisions of this kind are indispensable for any effective realization of the social values of the home room. The general objectives of the room organizations are set forth by the schedule, which describes Monday as "advisory" day, Wednesday as "home-room" day, and Friday as "health" day. Such an allotment of days is a convenient plan for emphasizing major objectives. Every room elects a president, a vice-president, a secretary-treasurer, and a representative to the council. Several rooms have other officers for special duties.

The following list of activities gives an idea of the social experi-

ences which pupils may gain from home-room work: (1) provide programs for meetings of the assembly and of class organizations as well as for the home room; (2) conduct devotional exercises and discuss and debate school problems; (3) check attendance and tardiness and take notice of the sick or bereaved; (4) collect money for the *Broadcaster*, the Junior Red Cross, and other school associations and for parent memberships in the Parent-Teacher Association; (5) devise programs for carrying on the school's health work; (6) maintain order in the absence of the teacher, keep the room clean, and provide decorations; (7) discuss the qualities of worthy school citizenship, current events, changes in the daily schedule, and personal problems of the pupils.

The foregoing list constitutes a composite picture of the activities of the home room, and it is clear that any pupil who takes part in all or nearly all of these activities is gaining a rich and varied social experience. In practice, however, the experiences which pupils gain vary widely because the teacher advisers vary in their abilities, interests, and attitudes toward their rooms. Some teachers exhibit a keen interest in this work and a sound knowledge of group organization in the distribution of duties and opportunities to the officers and members of their rooms. These teachers have a wide range of activities carried on with dispatch and vigor. Fortunate are the pupils who are members of their rooms. Other teachers appear to consider the home-room period largely an occasion for checking attendance and getting a start on the subject-matter recitations of the day. They listed few activities and did not appear to be informed concerning an equitable distribution of work among the pupils. Pupils whose rooms are supervised by such teachers gain comparatively little social experience.

The general administration of the school has taken particular pains to help the teachers in outlining the Friday home-room programs, which are devoted to health topics. A useful mimeographed list of suggestions is available for this purpose. The responsibilities of the home rooms with reference to assembly and class programs, as well as the usual morning devotional exercises in each room, appear to have been well planned by the faculty. On the other hand, the teachers do not appear to have had sufficient assistance in the

work of advising pupils as individuals with regard to personal and school problems. Sufficient thought does not appear to have been given to such topics as how to study and the characteristics of desirable school citizenship, dress, and manners.<sup>1</sup> One of the most valuable methods of improving the situation is to appoint a permanent committee of teachers to study the opportunities of the home room and to make the results of their investigations available to the teaching staff in some practicable form.

*The school assembly.*—The home-room period on Thursday is devoted to an assembly of the entire school. From the foregoing, it is clear that all the pupils are closely related to this work and that many of them have opportunities to appear before the assembly in various capacities. These opportunities give invaluable training in the important art of effective appearance before large groups of people.

*The student council.*—The organization of the student council is representative and comprehensive in that its members consist for the most part of home-room delegates. The president of the council is the only member who is elected by the student body at large. One of the most valuable types of practical civic training that a student body can obtain is that of carrying on an extensive campaign for the election of council officers. With this objective in mind, it would be worth while for the faculty to consider the plan of selecting several of the officers of the council at a general school election. The council meets every other week for a period of thirty minutes. At the present time it does not appear to be as active and as helpful a body as the school can use. It appears to be desirable for the council to enlarge its program and to consider, in addition to its present work, such common problems as the protection of property, the reduction of absence and tardiness, the improvement of scholarship, the introduction of new pupil activities, the regulation of the social life of the school, budgetary control of the finances of pupil organizations, election campaigns, and charity projects.

At the present time the custom is to intrust a very substantial

<sup>1</sup> For a valuable description of activities and forms of organization appropriate for home rooms, see the manual of the Winfield High School, Winfield, Kansas, entitled, *Manual of Activities and Administration and the Outline of Home Room Study and Activity*.

part of the business of the council to a smaller executive committee. In view of the fact that the entire council consists of no more than thirty members, it is doubtful whether this policy is necessary because of unwieldy numbers, and it deprives the other members of the council of the opportunity to become intimately acquainted with the civic problems of the school. This condition is undesirable both from the standpoint of the other members and from the standpoint of the home rooms which they represent, in view of the fact that one of the principal duties of the members of the council, who are representatives of the home rooms, is to keep their constituencies informed with regard to the activities of the council. It is highly desirable to encourage free and systematic intercourse between the council and the home rooms.

Twenty-two of the twenty-nine home-room delegates come from the seventh and eighth grades. Only seven come from the senior class. It has often been found helpful to have a greater proportion of the members from the senior class. This can be arranged easily and in a manner that is acceptable to all. It would be particularly desirable in the present instance, in view of the fact, which will be disclosed later, that a considerable number of the ninth-grade pupils are not sufficiently engaged in the school's social program. At the present time the council is not guided in its work by a written constitution. A constitution is a very useful instrument in the life of so important an organized group as a student council. Framing an instrument of this kind, living by it, and amending it on occasion are indispensable elements of a well-balanced course in social experience.

*Class organizations.*—The grades or class groups constitute the fourth type of core organizations in this school. Each class holds a thirty-minute meeting twice a month. These organizations attempt in various ways to stimulate class and school spirit. They encourage their members to participate in the various pupil organizations, entertain one another at large social functions, and undertake to raise money for legitimate school purposes. As is usually the case, the senior-class organization appears to be the most active. Every year it makes a useful parting gift to the school in the form of a trophy case or a picture. It is important that class advisers should understand clearly the most significant opportunities of their re-

spective organizations. One of the most valuable functions of the freshman class, for example, is to help its members to adjust themselves to the new school environment and to carry on a systematic educational program with that end in view. Two of the most valuable functions of the senior class are to follow a definite program of service to the school, such as setting the standards in courtesy, and to encourage its members to continue their education into the senior high school.

It is apparent from the situation as thus far described that the Alexander Graham Junior High School has arranged its program of social education in such a way as to provide for every pupil at least a minimum amount of social training by means of the pupil organizations, which include the home-room groups, the assembly, and the student council on the one hand and the class groups on the other. This conception of a fundamental core of social experience is thoroughly sound and practicable.

*Voluntary pupil organizations of the school.*—A condensed description of the voluntary pupil organizations in the Alexander Graham Junior High School is presented in Table I. The total number of organizations, thirty-six, is decidedly above that of the average school of the same size. It should be noted in this connection, however, that four of the English clubs and the six science clubs consist of recitation groups which meet as clubs certain days of the week. Organizations of this kind may be considered genuine clubs when they have pupil officers and when the teacher successfully encourages initiative and self-direction in the work of the pupils. Many teachers to whom club work is a new experience find this kind of organization a natural beginning. The voluntary organizations in Table I include four major organizations which exact a large amount of work from their members and which appeal to three of the strongest human interests—news-writing, dramatics, and music. The most significant reason for listing these organizations separately is that each makes substantial contributions to the welfare or entertainment of the entire school. A well-balanced program of school organizations ought to include several pupil groups of this kind. In the writer's opinion, it would be to the advantage of this school to add to the list of major organizations an

honor society for the encouragement of scholarship and a school bank for the encouragement of thrift. Examination of the list of minor departmental organizations shows that pupil interests of this kind have been developed in this school to a substantial degree. Sufficient space is not available for a complete list of the organiza-

TABLE I  
DATA WITH REGARD TO VOLUNTARY SCHOOL ORGANIZATIONS

	Number of Organizations	Number of Meetings a Month	Number of Members	Number of Officers	Number of Official Positions a Year	Number of Constitutions
<b>Major organizations:</b>						
Broadcaster.....	1	4	8	8	8	.....
Masquers.....	1	6	7	3	6	1
Orchestra.....	1	4	12	1	1	.....
Glee Club.....	1	8	106	5	5	.....
Total.....	4	22	133	17	20	1
<b>Minor departmental organizations:</b>						
English.....	7	15	337	21	23	.....
Science.....	6	16	135	18	30	1
Civics.....	5	18	232	12	24	.....
Athletics.....	3	20	57	5	5	.....
Mathematics.....	3	7	119	9	12	1
Foreign language.....	3	4	100	9	12	.....
Music.....	1	4	18	2	2	.....
Health Crusaders.....	1	4	33	3	6	.....
Art.....	1	2	24	4	8	.....
Total.....	30	90	1,055	83	122	2
Girl Reserves.....	2	4	55	5	5	2
<b>Grand total.....</b>	<b>36</b>	<b>116</b>	<b>1,105</b>	<b>105</b>	<b>147</b>	<b>5</b>

tions at this point. Several of them, however, are mentioned in a later section dealing with cases of extensive participation.<sup>1</sup>

The reader may observe with some surprise that only three athletic organizations are listed in Table I. This is due to the fact that the greater part of the athletic activities of the pupils is carried on during the school day as curriculum work. Every pupil in the school spends one period a week with the athletic directors of the city school system. The athletic program is carried on, however, in

<sup>1</sup> For further information concerning programs of pupil organizations in junior high schools, the reader is referred to chapters ii, iii, and v of *Extra-Curricular Activities in the Junior High School*, by Paul W. Terry (Baltimore: Warwick & York, Inc., 1926).

such a way as to give the pupils a large amount of valuable experience in social co-operation, practically all the work consisting of outdoor team play between regularly organized groups of pupils with suitable officers. In their proper seasons the various sports, such as tag football, soccer, basket ball, baseball, tennis, and track, are followed. Organized team athletics, therefore, might be listed appropriately as one of the core activities of the school, and it is significant to emphasize the fact that practically all the pupils are enabled to take advantage of this valuable form of social experience.

An examination of the last line of Table I discloses the fact that the voluntary organizations, which have 1,243 members, hold 116 regular meetings a month. A thirty-minute period on Thursday, which may be extended to forty-five minutes if the pupils come to school fifteen minutes early, is provided for the club meetings. A few organizations have decided to use longer periods for their work by meeting after school. Regular and flexible time provisions of this kind are necessary for a substantial development of the departmental-club program. The total number of pupils being trained as officers is 105. Several of the organizations provide one-semester terms of office. This arrangement is desirable in all cases where the offices do not require a large amount of skill on the part of the pupils who hold them, because it enables the organizations to train a larger number of pupils (147 a year in this case) in official capacities. Only five organizations have written constitutions. A constitution is not necessary for every school organization, but advisers should not fail to consider the training values which lie in the use of such instruments and should employ them in all the larger or more permanent organizations.

#### THE SOCIAL EXPERIENCE OF PUPILS IN EXTRA-SCHOOL ORGANIZATIONS

The attention of the reader was called in an earlier paragraph to the fact that organizations without the school are making substantial contributions to the social experience of boys and girls in school. Although organizations of this kind are not under the control of the school, most of them have been founded expressly for the education of boys and girls of school age, and many of them are

under the direction of men and women who have prepared themselves in a professional way for work of this nature. Very few of the outside organizations for young people are in conflict with the organizations of the school with respect to time, because their meetings are held after school. Their activities and the systems of control which they employ are different in many cases from those of the school, and the adults who are responsible for the work have personalities and interests which often differ from those of the teaching staff. For these reasons, it is clear that it is decidedly to the advantage of boys and girls to participate in the work of extra-school organizations, and it is equally obvious that the school, in its supervision of the social experience of its pupils, should take account of their contacts with outside organizations.

A classified list of the outside organizations to which the pupils of the Alexander Graham Junior High School belong is given in Table II. An inspection of the table discloses the fact that the juvenile organizations of the church attract a larger number of pupils than do all the other groups combined. The Sunday school is equally attractive to boys and girls, while the young people's and missionary societies attract larger proportions of girls. Facts of this kind might well be called to the attention of parents, ministers, and church workers by the principal of the school when occasion offers. The second most popular group is that of the non-sectarian character-building organizations. These organizations are extending their benefits to decidedly more boys than girls—a fact which should not be viewed with complacency by an enlightened community. A considerable number of boys and a few girls are members of neighborhood or institutional athletic groups. Some of these organizations carry on their activities under competent supervision, but others do not have the advantages of supervision of any kind—which is not always a wholesome situation for either boys or girls of junior high school age. Experienced principals are well aware of the fact that difficult problems which come to the attention of the school often have their origin in unsupervised activities of this kind.

As shown by the fourth major division of Table II, there is a marked interest on the part of the girls in purely social clubs. Clubs of this kind often give young people helpful training in politeness and

courtesy, particularly when they are sponsored by responsible and cultivated women. On the other hand, it is desirable to attach the pleasures of social intercourse for amusement to organizations the

TABLE II  
NUMBER OF BOYS AND GIRLS WHO ARE MEMBERS OF EACH TYPE OF  
EXTRA-SCHOOL ORGANIZATION

	GRADE VII		GRADE VIII		GRADE IX		GRADES VII-IX		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys and Girls
Church societies:									
Sunday school.....	134	168	98	137	111	125	343	430	773
Young people's societies:									
Christian Endeavor, St. Andrew's League, Light Brigade, Service League, etc.....	51 3	71 31	27 4	73 18	34 1	85 21	112 8	229 70	341 78
Missionary.....									
Non-sectarian character-building organizations:									
Boy Scouts, Scouts' Band, Girl Reserves, Camp Fire Girls.....	64	11	55	14	49	3	168	28	196
Y.M.C.A., Hi-Y, Y.W.C.A., Y. Bible classes, Boys' Club.....	37	22	36	28	36	10	109	60	169
Employers' boys' clubs: telegraph company, department store.....	I	.....	.....	.....	I	.....	2	.....	2
Neighborhood or institutional athletic teams and clubs: basket ball, baseball, football, gymnasium, swimming, tennis, golf, bicycle racing, etc.....	46	7	7	7	13	2	66	16	82
Social clubs.....	.....	27	.....	20	I	22	I	69	70
Cultural clubs:									
Fine arts: music, art, expression.....	.....	2	I	6	.....	I4	I	22	23
Public Library Club.....	I	16	.....	.....	.....	.....	I	16	17
Civic, patriotic, and fraternal societies: Junior Red Cross, W.C.T.U., Children of the Confederacy, Eastern Star, etc.....	.....	4	I	3	I	6	2	13	15
National Guard.....	.....	I	.....	.....	.....	.....	I	.....	I

primary purpose of which is to accomplish some useful service. It is clear, for example, that some of the meetings of the cultural clubs, which are listed in the fifth division of the table, could be arranged

to include cards and dancing, with the desirable result that many who like first of all to dance would develop interest in the fine arts and some who may be too exclusively devoted to the fine arts would be encouraged to learn how to enjoy wholesome amusements. The number of pupils in this school who are members of the Junior Red Cross will be greatly increased when the drive for membership takes place. It is apparent from a consideration of the situation as a whole that the boys of the school are now attracted to a greater variety of wholesome extra-school interests than are the girls. This fact suggests the importance of discovering and exploiting, in an organized way, a greater number of desirable interests for the girls of the school.

A knowledge of the facts which are here presented and of numerous others of a similar nature which principals and teachers can discover is particularly useful to educational leaders in their efforts to give sound social guidance to pupils and to stimulate community co-operation with the school in the work of preparing the youth for this day of highly co-operative living.

#### THE EXPERIENCE OF PUPILS IN THE BUSINESS LIFE OF THE COMMUNITY

Economic pressure on their families and the desire for economic independence and vital experience have led many pupils of junior high school age to find ways of earning money. Aside from the value of the money earned, which in some cases amounts to substantial sums each week, pupils obtain helpful training in the skills, insights, and attitudes that make for economic security in their later lives—a type of training of which the school itself usually gives all too little. In the great majority of cases the economic activities of boys and girls in school are undertaken on Saturday or for brief periods in the early morning or in the afternoon. A classified list of the business activities of the pupils in the Alexander Graham Junior High School is presented in Table III. Clerical work and delivery service in connection with various kinds of retail business attract the largest numbers of pupils. The distribution of newspapers and magazines is the next most frequent source of income. Under the third classification, "miscellaneous jobs," are included

the cases of several boys who earn considerable sums at skilled trades. The smallest number of pupils is engaged in office work and messenger service. A great majority of the working pupils are boys. This point gives further emphasis to the fact to which the reader's attention was called in an earlier paragraph, namely, that, in so far as activities outside of the school are concerned, the boys are devel-

TABLE III

## NUMBER OF BOYS AND GIRLS ENGAGED IN VARIOUS TYPES OF BUSINESS

	GRADE VII		GRADE VIII		GRADE IX		GRADES VII-IX— BOYS AND GIRLS
	Boys	Girls	Boys	Girls	Boys	Girls	
Retail business: groceries, dry goods, 5- 10c store (girls), shoes, drugs, tailor, millinery, milk, hardware, café, etc.; clerks, delivery boys, cashiers, soda clerks, waiters, etc.....	29	6	15	5	35	6	96
Newspapers and magazines: selling, col- lecting, delivering, mailing, folding, checking, etc.....	26	....	19	....	16	....	61
Miscellaneous jobs: theater usher, gaso- line-station attendant, chauffeur, stable boy, exercising dog, raising ducks, sign painting, plumber's helper, stage hand, working in packing house, selling base- ball tickets, carpenter, collecting rents, time-keeper, meat-chopper, Western Union clerk, etc.....	7	1	8	....	10	1	27
Office or messenger service.....	7	....	1	....	4	....	12
Total.....	69	7	43	5	65	7	196

oping a greater variety of substantial and wholesome interests than are the girls.

A considerable amount of detail as to the kinds of business activities in which junior high school pupils engage has been included in Table III. This table should be helpful to principals and teachers who desire to suggest practicable ways of earning money to boys and girls in their schools. Principals and teachers should remind themselves continually of the vividness of the appeal of the business world to boys especially. No pains should be spared to make the curriculum and the pupil organizations of the school as

attractive as the activities of the business community. In its efforts to give wise counsel to troubled or troublesome boys and girls, the school should not fail to take account of the time that is available to pupils for school work and the attitudes of pupils toward the school and the continuation of their educational careers, as these are influenced by their economic activities. Nor should the school fail to call the attention of business men to the fact that business, as well as the school, is responsible for the giving of valuable social experience to a large number of boys and girls. The business community should be continually impressed with its opportunity to train pupils in the correct habits and principles of business life and encouraged to take legitimate pride and satisfaction in a worthy fulfilment of its responsibility in this co-operative work.

*[To be concluded]*

## AN EXPERIMENT MADE BY A HISTORY TEACHER

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Experimenting with methods of teaching has been uncommon in the past, largely because of the idea that one could not afford to risk injuring the youth of the nation by any ill-advised experiments and also because of the many administrative difficulties involved. As a result of this situation, although there is a vast amount of literature on methods of teaching, there is relatively little concrete evidence to demonstrate the real merits of the various methods in the different school subjects.

When the writer was employed in a high school of about three hundred pupils, he was assigned two classes in modern European history. His only instructions of a supervisory nature were to make the pupils learn the textbook and to direct them in mastering it. From his previous experience and from study on the subject, he believed that pupils could acquire the essential facts of history and a great deal more in interest and general knowledge by doing a large amount of broad reading in connection with the textbook rather than by studying one book intensively. He decided to arrange an experiment and to test this theory.

One of the classes was used as a control group. The members of this class were to learn the facts of the textbook, following very carefully the supervisory instructions and spending most of their time in doing well this one task. Each member of the class was to have a notebook and to keep in this notebook a detailed outline of the text material. Each pupil was also required to do a limited amount of library reading, which amounted to two hundred pages each month. A record of this reading was kept in the notebook, and written reports on it were required by the instructor. These reports were chiefly a record with a brief statement as to why the reading was liked or disliked. A large part of the class period was spent in testing pupil preparation and in emphasizing important points in the text-

book. All kinds of devices were used to accomplish this and to make the entire course interesting. The pupils told the story of the lesson, asked one another questions, and made lists of dates with corresponding events and lists of important persons and places. Contests between two divisions of the group were frequently held. They competed to see which could score the better on informal tests at the blackboard. There were frequent short written tests on the daily preparation. The textbook was analyzed in various ways, and the pupils were shown how to outline it and to select the points which were worth remembering.

The other class was the experimental group. The pupils' study was planned with the textbook as a background or an outline but with the chief part of the preparation done in the library. The pupils were required to read widely rather than intensively and were encouraged to read far beyond the requirements. Slight increases in marks were allowed for large amounts of reading beyond that required. The minimum amount accepted was six hundred pages a month. The lists of books included historical novels, history tales, biographies, source books, college textbooks, general histories, and many books and articles on special periods or particular fields. Magazine articles were always accepted if they were related to the material being studied. The class period was spent in correlating the text and the library readings, in planning projects, in making reports, and in emphasizing the more important parts of the division being studied. The amount of reading done was checked by personal conferences, by written statements handed in by the pupils, and by short tests in class. The pupils were never asked to outline the library readings or to take organized notes on them. The aim of the instructor was to have the pupils feel that they were to read and to read voluminously and that, if they did the reading, they need have no worries about passing the course.

Each class covered exactly the same period of history during the semester. This was divided into large divisions, and each division was completed before a second was begun. At the close of each division, an objective test, based entirely on the textbook material, was given to each class. Identically the same test was given to each class on the same day. Since the control class met after the experi-

mental class had been dismissed, the only information carried from group to group would have favored the former.

The tests were of the type which can be answered with one word, the answers being either right or wrong. The questions were generally read to the classes, the pupils writing only the answers. In a few cases, the questions were written on the blackboard before the pupils entered the room. The instructor marked the papers by means of simple scoring devices. The pupils soon learned the type of test to expect, and in every case they favored the one-word-answer type rather than the older discussion type.

Each of the two classes was small, the experimental group containing sixteen pupils and the control group seventeen. Because of the shifting of programs and the loss of work by several pupils, the records of only twelve members of each group were used in the study.

At the beginning of the experiment, a record was obtained of each pupil's age, intelligence quotient, and ability to read historical material. The ages were obtained from the permanent records of the school. The I.Q.'s were found by means of the Otis Self-Administering Test of Mental Ability. This test was given to all the pupils in the school, and the papers were scored by the teachers. The reading figures were the average number of words of historical textbook material read a minute, as shown by several timed exercises; these were administered on the same day and the results tabulated by the instructor. On the basis of all these data, the individuals of one class were matched or paired with the individuals of the other class who appeared to be about equal in ability. The comparative records of these pairs were used to supplement the evidence of the class averages on the various tests.

Table I shows the comparative standing of the two classes with regard to age, intelligence quotient, and reading ability. This table shows that the two classes averaged very nearly the same so far as the three measures of native ability are concerned. The control group appeared to excel to a very slight extent but not enough to affect the class work markedly.

The general conditions outside the classroom were beyond the control of the teacher. The pupils had no supervision of their study whatsoever, except that they were required to keep quiet in the study hall and in the library. The school was well supplied with

library facilities, and there were two other excellent libraries in the town. There was no supervision of instruction in the school, and each teacher used the methods which seemed best or easiest. The pupils had good morale and were very proud of the reputation which the school bore in the state.

The period of European history studied during the first semester of the experiment extended from about 1600 to 1815. This period was divided into six large units or divisions; but, because the school required a test every six weeks, eight different tests were given. The pupils of each class had to be introduced to the methods in a very careful manner, especially those who had to do a large amount of reading. A day was taken for this purpose, and there were several follow-up discussions until both groups were doing well. The whole

TABLE I  
COMPARISON OF EXPERIMENTAL AND CONTROL CLASSES WITH RESPECT TO  
AGE, I.Q., AND READING ABILITY

	Mean Age	Mean I.Q.	Mean Rate of Reading in Words per Minute
Experimental class.....	15 yrs. 10.1 mos.	104.4	222.2
Control class.....	15 yrs. 8.4 mos.	107.1	237.4

semester was outlined first, and then the first division was taken up in detail. The instructor was careful to spend the same amount of time in each class on this type of preparatory work.

An analysis of the results of each test would be very interesting, but only a summary can be presented here. Table II presents the median and mean scores of the two classes on all the tests of the first semester, listed in the order in which the tests were administered. No attempt was made to calculate percentages; the figures given are the averages of the actual scores on the tests. The control group excelled in three of the eight tests; the experimental group, in the other five. The control group appeared to be doing somewhat better toward the end of the semester, but the experimental group, being only a fraction behind in the tests in which it did fall short and very far ahead in the ones in which it excelled, averaged enough better on the eight tests to make it the superior group.

Since averages are difficult to interpret, the individual scores of

all members of the two groups are presented in Table III. This table shows the pupils paired as has already been explained and gives the individual ages, I.Q.'s, and reading rates as well as the test scores.

An analysis of the data in Table III shows that in every case except three (Nos. 2, 8, and 12) the pupils in the experimental group made the better records when all the factors were considered. This evidence appears to favor the experimental type of work to an even greater extent than does the evidence of the averages, as given in Table II. Although the results are based on a very small group and a short period of time, the instructor believed that the methods used

TABLE II  
MEDIAN AND MEAN SCORES OF THE EXPERIMENTAL GROUP AND THE CONTROL  
GROUP ON EACH OF THE EIGHT TESTS OF THE FIRST SEMESTER

TEST	MEDIAN SCORES		MEAN SCORES	
	Experimental Group	Control Group	Experimental Group	Control Group
1.....	29.5	26.0	29.7	26.5
2.....	11.0	11.5	10.9	11.5
3.....	43.5	35.0	43.0	34.1
4.....	54.5	45.0	53.9	46.4
5.....	89.0	77.0	84.8	75.1
6.....	88.0	80.5	82.4	80.7
7.....	16.0	16.5	15.4	16.1
8.....	46.0	47.0	46.3	49.2

in the experimental class justified themselves and that the pupils who spent most of their time in the study of one textbook learned no more facts than did the pupils who spent most of their time in reading a wide variety of books.

At the end of the semester, several pupils changed their programs and dropped out of these two history classes. The result was that the principal of the high school united the two groups, forming one class. This shift left ten of the comparable "pairs" as listed in Table III. Instead of being in two separate classes, these paired individuals now met in the same class. In order to check the results of the first semester, this united class was taught by the method used with the experimental group, which had appeared to justify itself.

The pupils who were left to continue the study were those num-

bered 1, 2, 4, 5, 7, 8, 9, 10, 11, and 12 in Table III. Table III presents the individual qualifications of all these pupils and shows how well each did on the eight tests of the first semester. If the comparative

TABLE III

COMPARISON OF THE INDIVIDUAL QUALIFICATIONS AND RECORDS OF THE  
MEMBERS OF THE EXPERIMENTAL AND CONTROL CLASSES  
GROUPED IN PAIRS

PUPIL*	CHRONOLOGICAL AGE	I.Q.	RATE OF READING IN WORDS PER MINUTE	TEST SCORES									Total
				1	2	3	4	5	6	7	8		
A-1.....	14-5	100	186	32	10	41	51	90	88	17	45	374	
B-1.....	15-0	108	252	26	12	31	43	80	80	16	44	332	
A-2.....	16-8	106	308	31	11	30	50	89	88	12	47	367	
B-2.....	15-6	99	192	30	11	34	45	70	85	18	54	347	
A-3.....	17-9	105	260	32	13	53	66	93	90	17	50	414	
B-3.....	18-1	105	175	27	11	39	50	84	86	19	47	303	
A-4.....	14-8	115	192	35	13	53	66	91	92	10	57	417	
B-4.....	13-9	115	278	33	12	49	61	94	84	17	54	404	
A-5.....	14-10	113	160	29	8	51	59	94	93	16	50	400	
B-5.....	14-4	113	298	27	12	42	54	83	81	12	47	358	
A-6.....	16-9	85	160	23	8	28	36	68	57	14	37	271	
B-6.....	16-1	101	254	24	13	23	36	56	72	14	44	282	
A-7.....	18-4	95	182	28	12	30	42	73	70	14	37	306	
B-7.....	17-9	100	232	23	9	36	45	62	79	12	46	312	
A-8.....	15-8	108	190	27	10	39	49	73	71	19	49	337	
B-8.....	15-4	112	216	32	13	40	53	83	87	18	57	383	
A-9.....	15-4	105	300	28	12	50	62	94	88	16	45	395	
B-9.....	15-4	111	264	23	10	25	45	66	78	18	56	321	
A-10.....	15-11	106	274	29	11	42	53	82	72	16	38	343	
B-10.....	16-9	102	200	22	11	20	31	74	67	13	38	276	
A-11.....	14-11	102	214	30	12	45	57	82	80	15	44	374	
B-11.....	15-3	106	216	26	10	21	31	59	80	16	44	287	
A-12.....	14-10	113	240	32	11	45	56	89	91	19	56	399	
B-12.....	15-3	113	272	25	14	49	63	90	80	20	60	410	

\* "A" refers to experimental group; "B," to control group.

standings of these individuals were materially altered when they were all taught by the same method, it would appear that the method itself had an important bearing on the scores.

The work of the second semester dealt with the history of the world from the Congress of 1815 to the present time. So far as possible, precisely the same method was used as that described for the experimental class. The pupils who had been in the control group

had to be taught this method. The instructor repeated the directions given at the beginning of the year and explained to the new pupils that the different method, though appearing more difficult, was, in reality, more interesting and easier.

The work of the second semester, like the work of the first semester, was divided into units or divisions. The general outline was presented to the class, and the methods of testing were explained once more. In all, there were five of these divisions, but there were seven different tests on account of the requirement of a test every six weeks. These tests were scored and tabulated as for the first

TABLE IV

MEDIAN AND MEAN SCORES OF THE EXPERIMENTAL GROUP AND THE CONTROL GROUP ON EACH OF THE SEVEN TESTS OF THE SECOND SEMESTER

TEST	MEDIAN SCORES		MEAN SCORES	
	Experimental Group	Control Group	Experimental Group	Control Group
1.....	41.5	40.0	41.6	39.4
2.....	13.5	12.5	12.9	12.7
3.....	28.0	27.5	28.0	26.6
4.....	48.5	48.5	49.3	48.4
5.....	47.0	46.0	45.7	44.2
6.....	34.5	37.0	34.9	36.4
7.....	52.0	51.5	51.3	52.2

semester, but the records were kept separate as though for two different classes. The average scores for the two groups are presented in Table IV.

An inspection of Table IV shows that the experimental group, being familiar with the methods followed, averaged slightly higher at the beginning of the semester but that the control group succeeded in doing slightly better toward the end. The figures for the two groups are so nearly the same that one is justified in saying that they did about equally well on the seven tests.

The record would not be complete, however, without a tabulation of the individual scores showing how the "pairs" of the first semester scored on these tests. Table V presents these scores for the twenty pupils who continued in the class.

Nearly all the pupils in the control group who had made lower

scores while using the control method improved and surpassed their paired "mates" in the later tests of the second semester when both were using the same method. In every case except Nos. 5 and 7 the control pupils averaged practically as high on the last three tests as did the corresponding experimental pupils, or higher. In the case of

TABLE V  
COMPARISON OF THE INDIVIDUAL RECORDS OF THE PUPILS IN THE TWO  
CLASSES WHO CONTINUED THE SUBJECT THE SECOND SEMESTER

PUPIL*	TEST SCORES							Total
	1	2	3	4	5	6	7	
A-1.....	46	15	32	56	46	38	49	282
B-1.....	39	12	22	38	48	35	50	244
A-2.....	45	12	31	46	39	33	55	261
B-2.....	41	11	25	45	40	38	53	253
A-4.....	44	13	28	54	47	39	54	279
B-4.....	42	12	33	58	43	39	58	285
A-5.....	40	12	26	60	48	35	56	277
B-5.....	41	12	29	52	39	34	56	263
A-7.....	34	14	27	38	47	31	42	233
B-7.....	38	13	26	39	32	39	45	232
A-8.....	38	10	22	42	47	34	45	238
B-8.....	43	14	29	52	51	34	47	270
A-9.....	41	14	30	51	52	34	53	275
B-9.....	35	13	28	55	45	38	55	269
A-10.....	42	14	28	41	44	33	50	252
B-10.....	31	11	18	43	48	32	50	233
A-11.....	40	11	19	46	40	35	51	242
B-11.....	36	14	27	39	47	36	50	249
A-12.....	46	14	37	59	47	37	58	298
B-12.....	48	15	29	63	49	39	58	301

\* "A" refers to experimental group; "B," to control group.

No. 7, the control pupil excelled in the last two tests, and experimental pupil No. 5 was only one point behind in these two tests. Table V appears to show that, individually and as a class, the control pupils were doing a type of work commensurate with their abilities when the second semester closed.

A summary of the experiment shows that, when two groups of pupils, approximately equal in ability, prepared their history lessons by different methods, the class which read extensively and collected information as an incidental part of the process was able to remem-

ber more facts and to do better on tests than the class which spent most of its time in the intensive study of the facts which it was expected to remember. When the lessons of the two groups were prepared by the same method, each group reading widely, the two groups did about equally well. The instructor believes that the experimental or general-reading method justified itself.

The improvement of methods of teaching is one of the major problems of education today. This experiment is described not alone because of its intrinsic value but because it is an example of what the ordinary teacher of the public high school can do to overcome the problems which face him. The field of experimentation is as wide as education itself.

## A PROJECT TEST OF ACHIEVEMENT IN SEWING

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The great majority of girls are expected to be concerned with sewing, to some extent at least. Many will be concerned from the practical standpoint of constructing, selecting, or repairing clothing. A smaller number may be interested in sewing as a pastime or a fine art. Sewing as a subject of instruction is of concern to the school from the standpoint of (1) the educational values claimed for it, (2) the number of teachers needed for this subject and their preparation, and (3) the provisions necessary for meeting the financial and curricular demands of such instruction.

The need of clearly defined objectives and of adequate measures of sewing instruction is urgent in view of the fact that the subject has been introduced extensively into the public schools and in view of the fact that numerous institutions are engaged in the task of training additional teachers for work in this field. Approximately one-half of the high schools in the state of Kansas, in which small high schools predominate, employed one or more sewing teachers in the school year 1924-25. Additional teachers were frequently employed to teach sewing in the elementary schools.

Data recently collected from 125 teachers of sewing in eighty-eight high schools (63 per cent of the schools addressed) show that in some schools sewing is a required subject for all girls. In other schools it is entirely elective, but more frequently it is a required subject in some courses and an elective in others. Sewing is offered most frequently in the freshman year of the high school, but it may be found as a curriculum element in Grades V-XII.

There was marked diversity in the statements made by the sewing teachers with regard to their aims or objectives even in what were apparently the same courses. A total of forty-six specific aims and eleven more general purposes were named by the 125 teachers. The specific aims reported have been classified under the following head-

ings: (1) fundamental processes in sewing, (2) principles of dress, (3) garment construction, (4) care and hygiene of clothing, (5) knowledge of textiles, and (6) habits of work. It is significant that the courses of study pertaining to sewing were almost as varied as the objectives stated. Many schools seemed to have no definite course of study, and approximately one-half of the schools reported no textbooks or reference books available for the pupils enrolled in sewing courses.

The methods employed by the teachers of sewing in measuring the pupils' achievement consisted chiefly of subjective tests prepared by the teachers or supervisors. Seven per cent of the teachers had used standardized tests, and sixteen per cent had used objective tests of some sort. Comparatively few teachers had attempted to apply commercial standards to the garment-making work of the girls. The feeling has been expressed by teachers of sewing that their work is "vague in its purpose"<sup>1</sup> and that there is urgent need of effective means of measuring the results of instruction in the subject.<sup>2</sup>

Having in mind this situation and stimulated by her own experience as a teacher of sewing, Catherine T. Giblette has developed and tried out a test designed to measure the achievement of pupils in elementary sewing. It is probable that the technique employed will interest administrators, supervisors, and teachers of other subjects as well as teachers of sewing. Based on common elements in the courses of study submitted and in the objectives listed by the 125 teachers, the test comprises a series of twelve simple projects involving actual sewing technique and garment construction. It includes both hand sewing and machine sewing and is intended for pupils who have had one or two years of instruction in sewing.

The project test comprises the following elements:

1. Plain hem, basted and machine stitched
2. Hem on curved material, machine stitched
3. French seam, machine stitched
4. Felled seam, machine stitched
5. Bias facing, machine stitched
6. Fitted facing, machine stitched

<sup>1</sup> Mabel Barbara Trilling and Adah Hess, "Informal Tests in Teaching Textiles and Clothing," *Journal of Home Economics*, XIII (October, 1921), 483-89.

<sup>2</sup> Florence Williams, "Standards of Attainment for Ability in Machine Sewing." Unpublished Master's thesis, University of Chicago, 1922.

7. Bound pocket, machine stitched
8. Plaiting skirt and attaching to underwaist, machine stitched
9. Wool seam, and finishes: notched, bound, overcast
10. Darning hose
11. Hemmed patch
12. Overcast patch

Each pupil tested was provided with the material needed and also with a sheet of directions, including a definite statement of procedure for each of the projects. So far as possible, the projects were treated as though they pertained to a real garment. The test was expected to indicate a pupil's knowledge of the processes and her skill in workmanship. A preliminary use of the test in the schools of Topeka and Lawrence, Kansas, provided 170 specimens of the work of junior high school girls.

In order to reduce, so far as possible, the influence of subjective factors in the scoring of the specimens of sewing, the combined judgments of several persons were employed. Nine presumably competent judges were secured—three selected teachers of sewing in the junior high school, three university students taking advanced work in sewing, and three "professional" sewers who were familiar with commercial standards. Each judge, working independently, was asked to score the specimens of sewing with reference to the quality of work represented, employing S, S-, and S+ to designate satisfactory, unsatisfactory, and very satisfactory, respectively.

In the tabulation of the judgments, the three types of judges were treated as three groups of three judges each. It is of interest to note the agreement within the groups and between the groups in the classification of the 170 specimens. The judges were requested to consider the workmanship, the degree of completeness, and the care with which the directions had been followed.

The three student judges were in complete agreement in the scores assigned to 56 per cent of the specimens of sewing (Table I). Two of the three student judges agreed on 42 per cent of the specimens. Accordingly, there was essential agreement on 98 per cent of the specimens judged. So far as is known, the judgments were actually made independently, in keeping with the instructions. The other two groups of judges reached essential agreement on nine out of ten specimens. It is significant that in these groups the agreement

was marked although the judges presumably represented differences in training, experience, and background. Apparently the student judges were more like-minded because of the similarity in their training and experience.

The data in Table I seem to suggest that, when this plan of scoring is used, the impartial judgment of an individual teacher as

TABLE I  
PERCENTAGE OF CASES IN WHICH THE JUDGES IN EACH GROUP WERE IN  
COMPLETE AGREEMENT, IN PARTIAL AGREEMENT, AND IN  
COMPLETE DISAGREEMENT

Judges	Complete Agreement (All Three)	Partial Agreement (Two)	Complete Disagreement	Complete and Partial Agreement
Teachers.....	38	52	10	90
Students.....	56	42	2	98
Professional sewers.....	27	62	11	89

competent as the student judges may possess a high degree of reliability, the composite judgment being taken as a criterion.

According to the composite judgment of the teacher judges, 8 per cent of the specimens were very satisfactory (S+) and 43 per cent were unsatisfactory (S-) (Table II). While the scores assigned by the other groups of judges were a little less severe, the nine judges seemed to agree that approximately one-third of the specimens were unsatisfactory.

TABLE II  
PERCENTAGE DISTRIBUTION OF THE SCORES

Judges	S+	S	S-	Total
Teachers.....	8	49	43	100
Students.....	18	53	29	100
Professional sewers.....	12	55	33	100

As a result of this trial of the sewing test in two schools, several minor modifications were made in the test. After this revision, each of the component projects was assigned to from fifty to one hundred junior high school pupils in three cities in Kansas—Lawrence, Topeka, and Kansas City. The test results were scored by the three student judges. The method of scoring was the same as that de-

scribed. The ninth-grade girls attempted all the projects which comprise the test, but the girls in Grades VII and VIII were prepared for only six of the twelve projects and did not try the others.

The combined percentages of satisfactory and very satisfactory specimens of sewing were 37.0, 51.5, and 53.5 for Grades VII, VIII, and IX, respectively (Table III). In other words, there was a high percentage of girls in each of these grades who did not do satisfactory work. A further analysis showed that, in the separate projects, the percentages of specimens judged "unsatisfactory" ranged from 33 to 64 even for pupils who were completing their second year of sewing.

TABLE III

## PERCENTAGE DISTRIBUTION BY GRADES OF SCORES MADE BY JUNIOR HIGH SCHOOL PUPILS IN LAWRENCE, TOPEKA, AND KANSAS CITY

Grade	Number of Specimens	S+	S	S-	Total
VII.....	175	4.5	32.5	63.0	100.0
VIII.....	155	9.0	42.5	48.5	100.0
IX.....	543	16.5	37.3	46.2	100.0

The situation was not much different for the pupils who were completing their third year in this subject.

If these test results are regarded as an adequate measure, the situation is sufficiently serious to constitute an indictment of the sewing instruction. It seems that the girls are not able to do in a satisfactory way a considerable portion of the very things which they are expected to learn. In several elements of the test, more than 50 per cent of the specimens were unsatisfactory. One may wonder whether, if so searching a test were applied to classes in English or mathematics, it would show any higher percentages of satisfactory achievement.

What is here called the "project" type of test seems to be reasonably well suited to measuring achievement in a variety of school subjects, but it is perhaps especially applicable to the applied arts.

## DIRECTED STUDY IN FRENCH

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In the modernizing of the educational system, perhaps no subject group has had more to do to justify its existence in the high-school curriculum than have the modern languages. With this fact in mind, an experiment, based on the precept that the unit of instruction is not the class as a whole but the individual pupil, is being conducted in the French classes of the high school at Houghton, Michigan. The ultimate aim of the experiment as herein outlined is to give the pupil a reading knowledge of French. Coupled with this, of course, is the ability to speak or to understand such French as might be used in simple conversation.

It is necessary to understand at the outset that there are two sections in this field of work: the beginning, or first-year French, and the advanced, or second-year French. Although the method used in this experiment is, in general, the same for both sections, it differs in detail according to the section involved.

As we learn to write by writing or to talk by talking, so we learn to read by reading. There are various ways in which this reading might be accomplished, but in this experiment we have confined ourselves to the one method by which all reading is done in class under the direct supervision of the teacher. No books, with the exception of the grammars, which are used as reference books and for verb study, are ever taken from the classroom. This procedure is facilitated by the fact that we have free texts. Any pupil is privileged to ask the teacher any question which may occur to him concerning the translation. Pupils are encouraged to ask questions, and they respond very well. All absences, excused or unexcused, must be made up; the pupil must spend in the French classroom a period of time equivalent to the amount of time missed.

All pupils who are entering upon the study of a foreign language like to feel that they are accomplishing something, especially the first

few days; hence, the first week is spent in the pronunciation of the alphabet, vowels, and a few simple and frequently used words, such as *Monsieur*, *Madame*, *bonjour*, and *au revoir*. Simple sentences, such as the following, are also given: "*Comment allez-vous?*" "*Très bien, je vous remercie.*" The objects in the classroom are named, each object being indicated as it is named.

On the first day of the second week the texts are distributed. The following instructions are given.

1. Translate each sentence carefully.
2. Be sure to ask questions concerning any word of which you do not find the meaning.
3. All translations must be in good English.
4. Consult no one but the teacher.

With these simple instructions, the class is set to work. There is something novel in this procedure, and the pupils work hard for several days. By the end of that time, however, the novelty begins to wear off; and, in the case of those pupils who have not learned how to study, discipline is a real problem, at least for a while. It is encouraging to note in this connection that more often than not in the three years during which this plan has been in operation, the pupils have, as a result of tactful and constant guidance, learned to concentrate during all the time allotted and have even asked permission to spend extra time on their French.

During the first semester practically all the teacher's time is consumed in individual conferences. Many questions are asked concerning syntax and verb forms. In each case a careful explanation is given, and, if the situation warrants it, an explanation is given to the class as a whole; the teacher never answers the question, however, until "volunteers" have been called upon.

To give in detail a discussion of the work would involve a large amount of space. In general, four days a week are devoted to study of the type mentioned. No formal grammar is presented the first year. Verbs in their various forms are confusing, and it is almost impossible for the pupils to grasp the meaning of some sentences. This, of course, necessitates their asking questions and, in turn, provides a means of checking translation, for, unless questions are asked about the irregular forms, it may naturally be assumed that the

translation is not being done carefully. The outside or home work, which begins as early as the first week, consists of verb study and memorizing.

There are some days when the pupils are restless. This fact must be taken into consideration if each period is to prove beneficial. Numerous devices are used to avoid the monotony which might result from this type of study. Vocabulary tests are given, often conducted on the basis of the old-fashioned "spell down." At various intervals the class period is devoted to written exercises, which, although not always correctly done, enable the pupils to see that they are acquiring, through their reading, a knowledge of written French. On an average of once a week talks in French are given by the teacher. During the last ten minutes of this period the pupils are asked to write in good English a summary of the material which has been presented. As a whole, the reports are very good.

Three times during the semester the class period is devoted to "extemporaneous talks." Each pupil is given a slip of paper on which is a topic chosen from the book which he has been reading. The topic is a general one, covering much material. The pupil is required to give in idiomatic English a well-organized account of the work he has done. As all the pupils are eager to "catch" the speaker on any point that he may have missed, great interest is shown in this type of recitation.

Although these means of varying the work serve also as a general check, a more definite "checking system" is necessary.

A variety of means of checking each week's work is essential not only for the teacher but also for the pupil. If the same means were employed each time, very little would be accomplished; but, with a variety of unexpected tests, a very accurate check may be made.

This brings us, then, to the work actually accomplished. The class average in the first-semester section, in which intensive reading is stressed, is about 190 pages. Four pupils have read as much as three hundred pages, and nine have read more than two hundred pages; these pupils are among those who voluntarily spend extra time in the French classroom.

In the advanced or second-year French the first two weeks are devoted to a general review. On Monday of the third week text-

books are given out. Each day is spent in study, as in the first-year class. When everyone in the class has finished the book, a very comprehensive test is given. Several perfect papers have been written.

Some pupils finish this book in a very short period of time; others require as long as three weeks. As soon as a pupil completes his work, another text is assigned to him, the text being selected according to his ability. For a class of twenty-four pupils four copies of six different books are selected rather than twenty-four copies of a single book. This plan provides greater variety at the same cost.

Practically all the recitation work in this class takes place in the individual conferences, not more than two or at the most three formal recitations being held all year. Two days each week are devoted to the study of irregular verbs through the use of verb blanks. These verb blanks also involve translation and grammar; the proper verb form must be inserted in each of the sentences of the series following the verb. More formal grammar is presented in this section than in the first year.

In this class, in which extensive reading is stressed, the average for the year ending June, 1926, was five hundred pages. The greatest number of pages read was 1,250; the smallest, 300.

The final examination for both sections consists of a standard test given under the direction of the principal. The norm for the test<sup>1</sup> given in June, 1926, to the advanced section is 8.5 for sentences and 47 for vocabulary. The median for the class was 8.5 for sentences and 55 for vocabulary. Six pupils had perfect scores in vocabulary and but one error each in the sentences—a wrong tense of a verb. In the beginning section the norm is 5.5 for sentences and 32 for vocabulary. The class median was 6.5 for sentences and 36 for vocabulary. Three pupils scored more than 50<sup>2</sup> on vocabulary and two scored more than 45, while one pupil scored 9 on sentences and each of four pupils had a score of 8.

To be sure, this method has its difficulties. There is a big disciplinary problem in the first-year section, the solution of which cannot be reached in one week or two but may require five or six weeks. Then, too, it involves greater detailed knowledge on the part of the

<sup>1</sup> Henmon French Test.

<sup>2</sup> This is above the norm for third-semester French.

teacher, since she has to be ready at any time to answer any question on the texts used. It also requires a greater amount of patience on her part.

Even if the work accomplished should be less in amount, at least it is the result of the honest effort of the individual and not of the combined efforts of the pupil's family or of a group of pupils. It might be interesting to note in this connection something which occurred in the classroom. One of the boys who had been absent frequently and who required constant surveillance while in class deliberately tore five pages from a textbook belonging to one of the other pupils. When questioned, he admitted that he had torn the pages because he wanted to take them home so that his mother, who is of French origin, could translate them.

Two boys asked for permission to drop the course, giving as a reason the fact that it required too much work. This excuse simply meant that they had to rely on their own resources, which they were unable to do.

The greatest advantage of this method lies in the fact that it gives each pupil ample opportunity to accomplish as much as he is actually capable of doing, regardless of maximum or minimum requirements.

## Educational Writings

### REVIEWS AND BOOK NOTES

*A contribution to the how-to-study problem.*—Every college student must ultimately be personally responsible for his own habits of study, but, in the presence of teachers who should be able to guide him, a novice ought not to be allowed to stumble into study habits by the trial-and-error process. Error, too likely to predominate, may be made permanent. Conscientious but misdirected effort on the part of college students merely establishes uneconomical mental habits. If skilfully guided, a similar amount of effort will enable students better to master their immediate tasks and may possibly, perhaps probably, establish efficient mental habits. Bearing this truth in mind, here and there a college faculty is experimenting with a course designed to teach Freshmen how to study. From one such endeavor, so far as the materials used can be put in a textbook, has come a contribution<sup>1</sup> which may well be of service to other faculties seeking a solution of the same universal problem.

The author and his colleagues have apparently pooled their efforts in a series of lectures to Freshmen and have accompanied their verbal instructions by practice activities, which alone can give such lectures much value. Six of the fourteen chapters of *How To Study in College* are relatively easy to comprehend and inform the student how to keep fit physically and mentally, how to use the library, how to make notes, how to meet examinations, and how to invest time. A fair indication of the general method of treatment is the series of injunctions about writing an examination, each injunction elaborated in a few paragraphs (pp. 363-74): (1) get a good start, (2) look for general instructions, (3) survey the entire list, (4) select options before writing, (5) apportion time, (6) consider topics in order, (7) study the nature of each question, (8) follow detailed directions, (9) be definite, (10) use concise forms of presentation, (11) make cross-references, (12) keep active, (13) rest occasionally, (14) make use of a scratch sheet, (15) be neat, (16) re-read your answers—all sound advice and roundly given; of the same type are the rest of the easy chapters and the hard as well.

Chapters iii-x, inclusive, the meat of the book, are relatively difficult chapters for college Freshmen. As their names indicate, the chapters are applied psychology: "How To Concentrate," "How To Understand," "How To Learn," "How To Remember" (two chapters), "How To Judge," "How To Reason,"

<sup>1</sup> Leal A. Headley, *How To Study in College*. New York: Henry Holt & Co., 1926. Pp. x+418. \$3.00.

and "How To Read." In these chapters the author has endeavored to explain, as simply as consonant with his own wide acquaintance with the psychology of learning, the *what*, the *why*, and the *how* of every principle stated in the form of an injunction. The abundance of footnote references to Neumann, James, Dewey, Angell, Jastrow, Colvin, Robinson, and a score of others indicates the general lines of discussion. Occasionally, the reader is astounded to find food for college Freshmen expressed in headings like "decisions of intuition are semi-automatic" (p. 225). Fortunately, the author, fairly following the style of James in his more popular books, in most cases has made his points vivid with concrete illustrations. On the whole, he makes the abstract live attractively in the concrete. Freshmen will need guidance in the understanding of these chapters, but that is exactly the author's point: the teacher's duty is to guide students into correct understanding.

To the reviewer, *How To Study in College* appears to be a textbook that would not succeed in the class of an inexperienced instructor of first-year English. On the contrary, it is the best exposition of the subject in textbook form which can be placed in the hands of a freshman class guided by a capable and experienced teacher. One question suggests itself. Could not these important, well-selected, and admirably arranged materials have been explained even more simply? The functional value of an elementary textbook is sometimes lessened by the desire of the author to produce a volume that will pass muster with experts like himself. On the whole, *How To Study in College* gives evidence of a successful effort to steer midway between widely advertised but inaccurate "schemes" of study on the one hand and too abstruse, if technically sound, explanations on the other.

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R. L. LYMAN

*The mental fitness of seven great teachers.*—In recent years physical fitness has received much attention in educational programs. Physical fitness has been stressed not only for its own sake but also as an essential condition to mental health. In other words, we are beginning to realize the importance of what Professor Bobbitt lists as one of the ten aims of education—keeping oneself mentally fit. A recent book<sup>1</sup> deals with mental fitness as exemplified by the lives and writings of seven great teachers.

Professor Burnham begins by saying that the mental health of the child is the teacher's supreme concern. "To conserve the wholeness and wholesomeness with which a child is endowed; to develop an integrated personality at higher and higher levels; to preserve right mental attitudes; to train in habits of healthful activity; to prevent mental disorder; to give opportunity for significant and healthful activity—this is the teacher's greatest function" (p. 1).

He then proceeds to show that the great teachers of the past have been mental hygienists. He selected seven teachers who taught and lived the im-

<sup>1</sup> William H. Burnham, *Great Teachers and Mental Health: A Study of Seven Educational Hygienists*. New York: D. Appleton & Co., 1926. Pp. xiv+352.

portant principles of mental regimen and development. Socrates taught the importance of conscious attention and concentration as a means of integrating personality. Jesus emphasized subjective wholesomeness and objective righteousness. Roger Bacon is presented as a pioneer of scientific research and mental hygiene. Vittorino is termed the first modern schoolmaster because he first represented the modern point of view in the practical work of the school. Trotzendorf is presented as a pioneer in social pedagogy and social training. Comenius is termed the "Prince of Schoolmasters" because of his ability as a schoolmaster and as a contributor to the science of education and to social evolution. Finally, G. Stanley Hall is the representative of the genetic method and mental hygiene.

The book is really a history of education, presenting the contributions of seven great educational leaders to mental hygiene. Mental hygiene is defined as having a twofold aim: integration of the individual personality and integration of the social group. The seven teachers personally exemplified the first aim, and most of them labored to accomplish the second.

The author summarizes the lessons common to all these teachers. Each had a great task; each could concentrate attention; each was an example of orderly association; some had excellent habits of work; each had self-control; each had self-confidence; each was largely free from Bacon's four sources of human error; and each possessed the trait of simplicity.

The book is filled with such terms as "integration," "dynamic," "mental regimen," "mental health," "genetic," "hygiene," "energy," "tasks," and "concentration." Such terms not only reveal the character of the book but tend to make the book stimulating. Each chapter closes with an excellent summary and a bibliography.

The history of education is distinctly enriched by the appearance of this book. It presents aspects and contributions of past educational leaders not heretofore emphasized. The central idea throughout is that of mental fitness. This is so evident that one almost gets the impression that the author sought justification for his own theories in the lives of the great teachers. As a result, there is frequent repetition, even in the case of the sections devoted to a single teacher.

JOHN A. NIETZ

UNIVERSITY OF PITTSBURGH

*Junior high school practices.*—Most of the books on the junior high school have been concerned with the development of the new school, with the underlying principles and objectives, and with a general treatment of the curriculum. A book bearing the title, *Junior-High-School Procedure*,<sup>1</sup> comes at a time when students are demanding specific types of procedure to guide them in their studies of junior high school administrative practice.

The book begins with a brief chapter on the junior high school as a demo-

<sup>1</sup> Frank Charles Touton and Alice Ball Struthers, *Junior-High-School Procedure*. Boston: Ginn & Co., 1926. Pp. xviii + 596.

catic institution, followed immediately by two chapters on staff organization and the guidance program, both of which are valuable contributions. Chapter iv, "Adjustments to Varying Needs of Pupils," is a specific treatment of the technique used in making psychological, physical, and social adjustments. Blank forms, check lists, score cards, and record cards are included as illustrative material. There are chapters devoted to "Making the School Schedule," "Directing the Learning Activities," "Measuring and Recording Progress," and "The Management of Study Helps." The curriculum is treated by subjects from the standpoint of objectives, content, teaching methods, testing of results, directed activities, and correlation. The last part of the book includes chapters entitled, "The Social Program in the Junior High School" and "The Attendance System," both of which are valuable because of the practical treatment.

The chapter on "Exhibits of School Work and Close of School" might very well have been omitted. It deals with the exhibition of school work at the close of school in June and is obviously based on the experience of one school. Successful as that experience may have been in a particular community, it should not be included in a book of this type. A final chapter on accounting emphasizes a phase of junior high school procedure that has often been neglected by administrators. A list of books recommended for the professional library of the secondary-school principal completes the book.

Administrators in the junior high school field will want this book in their libraries. Likewise, supervisors and heads of departments will find in it many practical devices for their use. It might also serve as a textbook in a course in education organized around practical aspects of junior high school procedure.

H. C. MUTH

ROOSEVELT JUNIOR HIGH SCHOOL  
ROCKFORD, ILLINOIS

*Again, educational psychology.*—Anyone who has made an honest attempt to teach educational psychology to prospective teachers knows that it is not an easy task. In fact, one's labors appear to be futile regardless of text or technique simply because the students lack teaching experience. The ineffectiveness of such labor has led many instructors to attempt a different kind of educational psychology. The reviewer must confess that he once cherished the hope of writing a text which would bring results, until he discovered that all his fellow-sufferers harbored the same delusion. Is it possible to teach students a general educational psychology which will function when they become teachers? It is profitable, of course, to write texts for such a course so long as state laws require the subject of candidates for teachers' certificates, and it is to be expected that the double motivation will produce fat tomes.

The latest addition<sup>1</sup> to the five-foot shelf of educational-psychology texts comes from New York City. It has commendable features. Four have combined to write what might have been a book from each and have produced a

<sup>1</sup> Charles E. Benson, James E. Lough, Charles E. Skinner, and Paul V. West, *Psychology for Teachers*. Boston: Ginn & Co., 1926. Pp. x+390.

good text. Each author wrote about his own specialty, and one re-wrote the entire manuscript. The one who did the re-writing deserves to be congratulated. He managed to weld the mass into a readable unit, and, in addition, he clothed the usual technical material in words of greater simplicity than those commonly found in such texts. Perhaps this book will accomplish results. Simplicity is the essence of good teaching.

The book attempts an integration of the several points of view in psychology. The discussion is supported with experimental evidence collected from those representing different schools of thought. One finds in it data from the biologists, from the behaviorists, from the introspectionalists, and from the functionalists. The book opens with a prefatory statement on "How To Study," which sets forth the usual exhortations. Other chapters which attract attention because of newness in this setting are: "Biological Contributions to Educational Psychology," "The Autonomic Nervous System," "Play and Learning," "Statistical Methods for Teachers," "Mental Efficiency," and "Mental Hygiene." In the chapter on "Biological Contributions to Educational Psychology" one finds a discussion of Mendel's law; genes and chromosomes, the bearers of heredity; and the central nervous system. The chapter on "The Autonomic Nervous System" also reflects the influence of biology. It is concerned almost entirely with a discussion of the effect of the endocrine glands on mental development. Following this introduction on "How To Study," the biology of heredity, the development of the central nervous system, and the endocrine glands, the reader finds in chapter iv that his feet are again treading on the old familiar ground of "Native Equipment," the starting-point of educational psychology for a number of years. While this chapter does not include the old-time list of instincts, one finds a goodly number of them classified in three major groups under the heading, "Special Unlearned Tendencies," thus reflecting some of the more recent experimentation in this field. The book does not contain a discussion of the psychology of school subjects, which is generally a misnomer in textbooks on educational psychology because of the overemphasis on tests and measurements. One feature of the book which is likely to attract the attention of instructors is the Appendix, which contains "Suggestive Exercises for Review in Educational Psychology," "Suggestive Problems for Study," "Suggestions for Examinations in Educational Psychology," "Suggested Topics for Term Reports," and "A Vocabulary Test."

Throughout the text the authors are careful to call the reader's attention to the application of principles to the problem of teaching. One finds a list of questions and a bibliography at the end of each chapter. The citations in the chapters and the bibliography indicate that the authors have made a complete, up-to-date canvass of the entire field. These features, together with the fact that the language of the book is not verbose, will make it popular with the many college and normal-school instructors who are engaged in the process of professionalizing prospective teachers.

F. DEAN MCCLUSKY

PURDUE UNIVERSITY

*A text for house-planning.*—The purpose of a text for use in house-planning and home-management courses entitled, *The House and Its Care*,<sup>1</sup> is not different from the general purpose of many another textbook. The book has been written in a form suitable for use by students in the senior high school or the junior college or by home-makers who desire practical information on the subjects discussed. Its organization is something of an innovation in such texts. The author, a teacher of home economics at Purdue University, has developed the subject from the practical, rather than the artistic, point of view. She gives the point of view of the house-owner and the home-manager and information from the fields of art, architecture, textiles, economics, and the physical sciences.

The 392 pages of text are divided into eight parts or "projects"; each project in turn is divided into four to ten sections, each of which deals with one phase of the project. Thus, the first project, "The Bedroom," contains the eight following sections: "Points about the Plan of the Bedroom," "Wall Decoration in the Bedroom," "Floors and Floor Coverings," "Draperies for the Bedroom," "Furniture for the Bedroom," "Bedding," "The Arrangement of the Bedroom," and "The Care of the Bedroom." Each section—a section is approximately six pages in length—is concluded with questions and suggestive directions under the heading, "Problems and Practice."

The selection and the arrangement of the projects are likewise without precedent in texts on house-planning. The author says: "The work is outlined by projects, beginning with the one on 'The Bedroom' since the girl is usually interested in her own room; the third project deals with 'The Kitchen,' since it is probable that the student has become interested in planning and arranging a kitchen through her work in the foods classes or perhaps through assisting with meal preparation and service in her own home. The other projects are arranged in logical sequence leading from the kitchen" (p. vii). The sequence is as follows: "The Bedroom," "The Bathroom," "The Kitchen," "The Dining Room," "The Living Room," "Miscellaneous Rooms," "The Site and the House," and "Home Management."

The book contains a great amount of material, and one feels after reading it that much ground has been covered. If one agrees with its plan of organization and its point of view, one should find the book most usable, since the style is clear and definite.

HAZEL M. SCHULTZ

*Social problems for high-school pupils.*—With the increasing attempts made by high schools to relate the materials of instruction to the daily life of pupils, the study of sociology is slowly finding a place in the curriculum. Inasmuch as the scope of the materials to be included in the course is still in the realm of argument, a new textbook<sup>2</sup> in sociology is a matter of interest to teachers.

<sup>1</sup> Mary Lockwood Matthews, *The House and Its Care*. Boston: Little, Brown & Co., 1926. Pp. xii+414.

<sup>2</sup> Thames Ross Williamson, *Introduction to Sociology*. Boston: D. C. Heath & Co., 1926. Pp. x+338.

Many teachers are primarily interested in the plan or organization of subject matter in a textbook. The author's plan involves the division of the subject matter into five parts: "The Background of Our Social Life," "Social Aspects of the State," "Industry in Its Social Relations," "Selected Social Problems," and "The Road to Progress." Following an introduction in the early chapters, the author devotes two parts of the text to a discussion of the sociological applications of political and industrial life; immigration and poverty are treated in the second of these two parts. The family, the negro, crime, feeble-mindedness, and dependent classes are problems selected for study in Part IV. Part V, "The Road to Progress," is a discussion of building sound bodies, minds, and morals. Questions and topics for investigation are listed at the end of each chapter, but no references are given. There are many unique illustrations of the ideas developed. The book contains a three-page bibliography.

The text is written in a concrete style, and a consistent plan is followed in the treatment of the problems. Many teachers will feel that this treatment is too simple to give an adequate conception of the manifold implications of the problems and that pupils will not gain an understanding of the causes and effects of the problems and possible means of dealing with them. Teachers whose training in sociology involved a critical consideration of instincts as hypotheses will probably object to the discussion of instincts. The text seems to be an elementary introduction to social problems rather than an introduction to the study of sociology. Copious and serviceable lists of references, a valuable feature in earlier books published by the author, are not included in this book.

Teachers in schools in which only one semester of sociology is offered for pupils who have had little preliminary training in the social studies may wish to consider the book as a text for the course.

W. G. KMMEL

*Preparing budgetary estimates to cover the cost of school equipment.*—One of the problems arising in connection with the erection of school buildings is the determination of the proportionate amount to be set aside for the necessary equipment. A frequently used method is to make a lump-sum estimate of the cost of the equipment proportionate to the cost of the building. The amount ranges from 8 per cent for elementary schools to 12 per cent for secondary schools. In certain cities standardized building plans are used which include lists of standard equipment. In such cases the lump-sum estimate method gives satisfactory results. School districts in which standardized plans are not used find the method inadequate and too inflexible to meet varying local needs and financial limitations. A study<sup>1</sup> has been published which is designed to provide a more adequate technique. The proposed method makes use of the index-number technique. The author has developed a price list for furniture and another for machinery, indicating three price levels—median, upper quartile, and

<sup>1</sup> Arthur Kirkwood Loomis, *The Technique of Estimating School Equipment Costs*. Teachers College Contributions to Education, No. 208. New York: Teachers College, Columbia University, 1926. Pp. vi+112. \$1.50.

lower quartile—as of 1925. From these price lists assortments of items have been selected from which index numbers for furniture and for machinery have been derived. These lists have been checked against inventories of equipment found in representative schools, and, in order to insure accuracy, the prices have been prepared with the aid of manufacturers. Quotations for 1925 and for subsequent years will be furnished on request by the Division of Field Studies of the Institute of Educational Research of Teachers College, Columbia University. It thus becomes possible for school officials to make up equipment lists ranging from a modest outlay to a complete outfit and, through the use of the index-number technique, to determine the entire cost within close limits. The author claims that the method is reliable, adequate, flexible, and easily used.

The book contains a well-selected bibliography dealing with a representative group of equipment problems. The inventories of typical schools and the price lists of machinery and of furniture will be suggestive to school officials both for the items included and for the costs at three different levels. It is quite probable that these features will prove of more benefit to readers than the discussion of the theory of index numbers and the determination of the items that have been included in the lists, by means of which the index number for any year may be obtained. Freight charges have not been included; there is thus considerable opportunity for local variation on account of the distance from factories or branch houses. No variation is indicated for a considerable number of items in the lists. There are, in fact, a great many machines on the market that vary in price even though the size or capacity may be indicated as identical. It often becomes necessary and desirable to insist on quality and to know the merit of the furniture and machinery in making selections. In short, the book suggests a method that will be of assistance in determining costs in a general way; factors of transportation, quality, nearness to branch houses for repair parts, and fitness for specific needs, however, will still require detailed local study.

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ALBERT F. SIEPERT

*Second course in algebra.*—It is rather interesting to note that the authors of most of the textbooks in algebra written since the publication of the report of the National Committee on Mathematical Requirements claim that they have met the recommendations as set forth in that report, especially the one on the unification of the course through the function concept. In the Preface of a recent text in second-year algebra<sup>1</sup> we find this statement: "The report of the National Committee on Mathematical Requirements emphasized throughout that the one great idea which is best adapted to *unify* the course is that of the relationship between variable quantities" (p. vi). It should be noted that the statement implies (1) unification of the course and (2) unification around the function concept as the central theme.

<sup>1</sup> Howard Bates Baker, *A Second Book in Algebra*. New York: D. Appleton & Co., 1926. Pp. x+366.

So far as unification of the course is concerned, we find in the text the traditional arrangement of topics, related perhaps inherently but with no indicated relationship, following each other in a confusion of radicals, exponents, logarithms, progressions, and other algebraic concepts. In a chapter on polynomials the author discusses with considerable clearness the representation of the functional relationships by means of the formula and the graph. Such an isolated treatment is far too inadequate to be considered as unifying the course as a whole. Even here there is no attempt to interpret the algebraic expressions, or polynomials, as denoting functional relationships, a fact which may readily be established by allowing the letters involved in the expressions to assume different sets of arithmetical values. Neither does the chapter on ratio, proportion, and variation give the pupil a very concise conception of the functional relations involved. It is true that the ideas are inherent in the context and may be brought out by the teacher, but they are not made clear so that the pupil may get them himself.

As a traditional course, the book is more than another textbook in algebra. In addition to meeting the requirements of the College Entrance Examination Board, it has many valuable features, among which the following may be mentioned: (1) a brief introductory chapter on the objectives of algebra, intended to show the pupil how the course is to add to his mathematical knowledge; (2) the introduction of exponents and logarithms early in the book, a very desirable feature; (3) abundant, carefully graded problems of a practical nature; (4) the inductive method of developing algebraic principles; and (5) specimen questions of the College Entrance Examination Board throughout the book.

J. S. GEORGES

*A new biology text.*—The increase in general-biology courses in the high school and the dissatisfaction of teachers with existing texts are resulting in the constant production of new books. One<sup>1</sup> of the most recent was prepared by an instructor in the Western Illinois State Teachers College, Macomb, Illinois.

The material incorporated in this text has been subjected to four years of testing in the high school connected with the institution mentioned. According to the author, it "has been written to meet the urgent need for a text that adequately treats those phases of biology directly related to human welfare" (p. iii). However, it does not appear that many more direct applications are made in this text than in the average high-school biology. The presentation of the practical phases is given sufficient background to insure an understanding attitude on the part of the pupil. The author has chosen to treat fully the topics selected rather than to attempt an all-inclusive text. More than 40 per cent of the book is material usually considered as botany, and the remainder is about equally divided between human physiology and hygiene, zoölogy, and general principles. Considerable emphasis is laid on food relationships, bacteria and disease, heredity and selection, and succession and balance of species in nature. Detailed discus-

<sup>1</sup> Harry Dwight Waggoner, *Modern Biology: Its Human Aspects*. Boston: D. C. Heath & Co., 1926. Pp. viii+482.

sions of the structures of plants and animals are not included; it is expected that any desired work of this nature will be provided in the laboratory. No laboratory exercises or experiments are mentioned in the reading matter, although some experimental results are presented in illustrations. A supplementary laboratory manual is available (Mary A. Bennett, *Laboratory Exercises*. D. C. Heath & Co.).

Unfortunately, an attempt has been made to fit the book into the requirements of some schools by dividing it arbitrarily into four parts, namely, "Seed Plants," "Spore Plants," "Nutrition and Heredity in Man," and "Animals." That this division is artificial, at least in part, is shown by an examination of the chapter headings. One chapter under "Nutrition and Heredity in Man" is entitled, "Heredity in Plants and Animals"; one chapter under "Animals" is entitled, "Organisms and Their Environment." Both chapters are general in nature, as the titles indicate.

In style and treatment, the book is scientific rather than popular. It includes many modern touches not found in similar texts. A carefully selected bibliography is provided at the end of each of the four parts.

In the opinion of the reviewer, the book cannot be said to represent any striking addition to the field, although it ranks with the best of the present texts.

J. C. MAYFIELD

*Important aspects of child nature as related to guidance of childhood and youth.*—Recognizing the need of "parents, teachers, social workers, camp directors, and others who have to deal intimately with children . . . for a compact body of reading material covering authoritatively the more important aspects of child nature as disclosed by modern studies" (p. v), the Child Study Association of America has published a compilation<sup>1</sup> of citations from sixty-five authors, edited by Benjamin C. Gruenberg. This contribution is a fitting sequel to *Outlines of Child Study*, published in 1922 by the Federation for Child Study (later the Child Study Association of America).

The book is a topically arranged treatment, by recognized authors, of the significant physical and mental aspects of child nature from infancy through adolescence. An introductory interpretation by the editor precedes each topic. The selection of citations, made by more than thirty workers from hundreds of books and periodicals, cannot be said to be based on the prejudice of one mind. In fact, in some instances conflicting points of view are presented. The publications from which the citations are taken are dated from 1894 to 1925, with the great bulk of them dated later than 1915.

It is claimed in the Foreword that the selection and the arrangement of topics are based on the forty years of experience of the association with child-

<sup>1</sup> *Guidance of Childhood and Youth: Readings in Child Study*. Compiled by Child Study Association of America. Edited by Benjamin C. Gruenberg. New York: Macmillan Co., 1926. Pp. xii+324.

study groups, with agencies in the field of parental education, and with direct appeals from parents for help in the education of children. Four major divisions are made in the material of the book: "Impulses and Activities," "The Social Environment," "Organic Foundations," and "Individual Variations." Each major division is subdivided into topics, each of the various phases of which is treated by one author.

The first two divisions contain many useful suggestions that parents and teachers can put into practice in home and school. Common problems, right and wrong solutions, and the attendant psychological principles are discussed in a simple, direct style. A recital of the topics will show the range of problems treated. The ten topics under "Impulses and Activities" are: "Aspects of Discipline," "Truth and Falsehood," "Curiosity," "Fear," "Constructing and Destroying," "Imagination," "Play," "Ambitions and Vocations," "Rivalry and Competition," and "Fighting." The six topics under "The Social Environment" are: "The Use of Money," "Collecting and Other Hobbies," "Clubs and Gangs," "Books and Reading," "Nature in the Life of the Child," and "Coeducation." In these discussions the child is shown attempting to pursue his natural bent but repressed by the efforts of adults to mold him to fit social conventions. The authors believe, in general, that the adult should be able to recognize the natural bent of the child, should know when it should be interfered with and when it should be let alone, and should possess patience and skill in applying correct methods of guidance.

The third major division, "Organic Foundations," presents the psychological basis for the dominant point of view throughout the book. This point of view, modern in the development of the child-study movement, considers the child not as a finished automaton but as an organism, growing, changing, and developing in structure, functions, and activities. From this point of view, the child is considered neither good nor bad until he has learned, at the proper stage of his development and in specific instances, the difference between behavior that is acceptable and behavior that is not acceptable. The seven topics in this division are: "Survey of the Child's Development," "The Child as Organism," "The Early Years," "Instinct and Habit," "Speech Development," "Sex Education," and "Adolescence." The practice of the editor throughout the book of selecting discussions of both normal and pathological situations is well illustrated in the topic, "Speech Development." Here the normal development through the various linguistic stages is traced by Charles W. Waddle. The various speech defects, suggested precautions, and remedial adjustments are discussed by Margaret Gray Blanton and Smiley Blanton.

The last major division, "Individual Variations," contains three topics: "Heredity," "Mental Tests," and "The Exceptional Child." It is placed last, perhaps, because parents and teachers have expressed little general interest in it. In the forty-four pages devoted to individual differences, the basic psychology of variations is discussed with only slight emphasis given to problems and solutions in exceptional cases.

The reviewer believes that the book contains a vast amount of extremely valuable material for parents, teachers, and others intrusted with the guidance of children and youths. If skilfully employed by parents in the preschool period and by parents and teachers during the school years, the basic knowledge and practical suggestions furnished would eliminate much of the physical, mental, and social inco-ordination which handicaps many individuals. The big problem, however, is to bring parents and even teachers so to realize their need for such knowledge that they will expend the time and energy necessary to make adequate use of such contributions as the one under discussion. The book contains 324 pages, about seven-eighths of which are printed in nine-point type. The size of the type and the psychological nature of much of the material may hinder a wide acceptance of the book for independent use, especially by parents. Because of its condensed treatment of topics pertinent to common problems, it should be readily acceptable in class work for training teachers and other social workers. The detailed "Contents" and complete "Subject and Name Index" make the book particularly valuable for quick reference work.

CLOY S. HOBSON

#### CURRENT PUBLICATIONS RECEIVED

##### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

BLANTON, SMILEY, and BLANTON, MARGARET GRAY. *Child Guidance*. New York: Century Co., 1927. Pp. xviii+302. \$2.25.

BROWN, ANDREW WILSON. *The Unevenness of the Abilities of Dull and of Bright Children*. Teachers College Contributions to Education, No. 220. New York: Teachers College, Columbia University, 1926. Pp. viii+112. \$1.50.

*Educational Yearbook of the International Institute of Teachers College, Columbia University, 1925*. Edited by I. L. Kandel. New York: Macmillan Co., 1926. Pp. xvi+584.

GRANRUD, JOHN. *The Organization and Objectives of State Teachers' Associations*. Teachers College Contributions to Education, No. 234. New York: Teachers College, Columbia University, 1926. Pp. x+72. \$1.50.

JONES, WALTER BENTON. *Job Analysis and Curriculum Construction in the Metal Trades Industry*. Teachers College Contributions to Education, No. 227. New York: Teachers College, Columbia University, 1926. Pp. vi+104. \$1.50.

OLSEN, HANS C. *The Work of Boards of Education*. Teachers College Contributions to Education, No. 213. New York: Teachers College, Columbia University, 1926. Pp. viii+170. \$1.50.

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